

Inventor Search

WHITE 09/955,864

=> D HIS

(FILE 'HOME' ENTERED AT 13:47:09 ON 03 DEC 2002)

FILE 'HCAPLUS' ENTERED AT 13:47:18 ON 03 DEC 2002

L1 47 S DOENGES R?/AU
L2 200 S KIRCHNER J?/AU
L3 246 S L1-2
L4 16 S L3 AND CELLULOS? ETHER
L5 3 S L4 AND ?SULFOALK?
SELECT RN L5 1-3

3 cites

selecting reg #'s from L5

FILE 'REGISTRY' ENTERED AT 13:48:53 ON 03 DEC 2002

L6 14 S E1-14 ? 14 opds
L7 5 S L6 AND NC>2
L8 4 S L7 AND "CELLULOSE"

FILE 'HCAPLUS' ENTERED AT 13:51:20 ON 03 DEC 2002

L9 3 S L5 AND L6 ? *3 citations and 14 opds displayed*

=> d ibib abs hitstr IND 1

L9 ANSWER 1 OF 3 HCPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:290646 HCPLUS

DOCUMENT NUMBER: 132:323031

TITLE: Water-soluble hydrophobically modified
sulfoalkyl cellulose ethers

, process for making the same and their use in
dispersion paints

INVENTOR(S): Donges, Reinhard; **Kirchner, Jurgen**

PATENT ASSIGNEE(S): Clariant G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 997478	A1	20000503	EP 1999-121342	19991026
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19849442	A1	20000504	DE 1998-19849442	19981027
US 6313287	B1	20011106	US 1999-427351	19991026
JP 2000204102	A2	20000725	JP 1999-305997	19991027

PRIORITY APPLN. INFO.: DE 1998-19849442 A 19981027

AB Polyalkoxylated hydroxyalkyl **cellulose ethers** having
0.001-1.0 alkyl groups and 0.01-0.1 **sulfoalkyl** groups per
anhydroglucose unit, useful as thickeners for dispersion paints, are
manufd. by reaction of polyalkoxylated hydroxyalkyl **cellulose**
ethers with alkyl halides or alkyl glycidyl ethers and then
sulfonation in the presence of a basic catalyst. A typical thickener was
manufd. by reaction of cellulose pulp with ethylene oxide, reaction of the
intermediate with Grilonit RV 1814 (C15-17-alkyl glycidyl ether), and
sulfonated of the 2nd intermediate with Na vinylsulfonate.

IT 266348-32-7, Mowilith LDM 7712

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(paint; water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)

RN 266348-32-7 HCPLUS

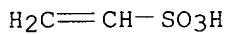
CN Mowilith LDM 7712 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 3039-83-6DP, Sodium vinylsulfonate, reaction products with adducts
of alkyl glycidyl ethers and ethoxylated cellulose pulp
25322-68-3DP, Polyethylene glycol, reaction products with
cellulose pulp, alkyl glycidyl ethers, and sodium vinylsulfonate
54140-67-9DP, Denacol EX-145, reaction products with ethoxylated
cellulose pulp and sodium vinylsulfonate 86630-59-3DP, Denacol
EX-171, reaction products with ethoxylated cellulose pulp and sodium
vinylsulfonate 138988-65-5DP, Grilonit RV 1814, reaction
products with ethoxylated cellulose pulp and sodium vinylsulfonate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)

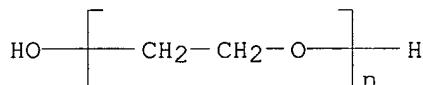
RN 3039-83-6 HCPLUS

CN Ethenesulfonic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

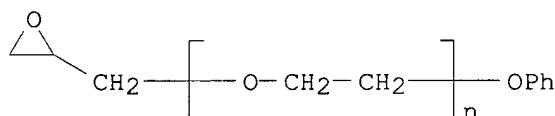


● Na

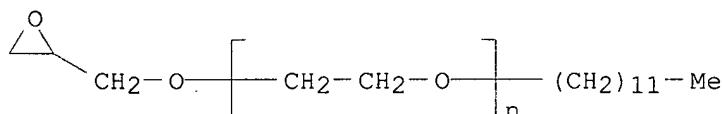
RN 25322-68-3 HCPLUS
 CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 54140-67-9 HCPLUS
 CN Poly(oxy-1,2-ethanediyl), .alpha.- (oxiranylmethyl)-.omega.-phenoxy- (9CI) (CA INDEX NAME)



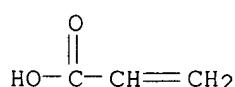
RN 86630-59-3 HCPLUS
 CN Poly(oxy-1,2-ethanediyl), .alpha.-dodecyl-.omega.- (oxiranylmethoxy)- (9CI) (CA INDEX NAME)



RN 138988-65-5 HCPLUS
 CN Grilonit RV 1814 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 IT 79-10-7D, Acrylic acid, esters, polymers
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)

RN 79-10-7 HCPLUS
 CN 2-Propenoic acid (9CI) (CA INDEX NAME)



IC ICM C08B011-193

ICS C08B011-10
 CC 42-5 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 43
 ST polyoxyalkylene **cellulose ether** sulfonated alkylated
 thickener dispersion paint
 IT Cellulose pulp
 (ethoxylated, reaction products with alkyl glycidyl ether and sodium
 vinylsulfonate; water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT Ethers, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (glycidyl, alkyl, reaction products with polyoxyalkylated cellulose,
 sulfonated; water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT Paints
 (latex; water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT Polyoxyalkylenes, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reaction products with cellulose pulp, alkyl glycidyl ethers, and
 sodium vinylsulfonate; water-sol. hydrophobically modified
sulfoalkyl cellulose ethers for dispersion
 paint thickeners)
 IT Alkyl halides
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reaction products with polyoxyalkylated cellulose, sulfonated;
 water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT Thickening agents
 (water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT 266348-32-7, Mowilith LDM 7712
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (paint; water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT 3039-83-6DP, Sodium vinylsulfonate, reaction products with adducts
 of alkyl glycidyl ethers and ethoxylated cellulose pulp
 25322-68-3DP, Polyethylene glycol, reaction products with
 cellulose pulp, alkyl glycidyl ethers, and sodium vinylsulfonate
 54140-67-9DP, Denacol EX-145, reaction products with ethoxylated
 cellulose pulp and sodium vinylsulfonate 86630-59-3DP, Denacol
 EX-171, reaction products with ethoxylated cellulose pulp and sodium
 vinylsulfonate 138988-65-5DP, Grilonit RV 1814, reaction
 products with ethoxylated cellulose pulp and sodium vinylsulfonate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)
 IT 79-10-7D, Acrylic acid, esters, polymers
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (water-sol. hydrophobically modified **sulfoalkyl**
cellulose ethers for dispersion paint thickeners)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

WHITE 09/955,864

=> d ibib abs hitstr IND 2

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2000:289105 HCAPLUS
 DOCUMENT NUMBER: 132:309900
 TITLE: Preparation of hydrophobic cellulose ethers bearing sulfoalkyl groups for use as protective colloids in polymerization
 INVENTOR(S): Doenges, Reinhard; Wurm, Horst
 PATENT ASSIGNEE(S): Clariant G.m.b.H., Germany
 SOURCE: Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19849441	A1	20000504	DE 1998-19849441	19981027
EP 1002804	A1	20000524	EP 1999-121343	19991026
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000204101	A2	20000725	JP 1999-305986	19991027

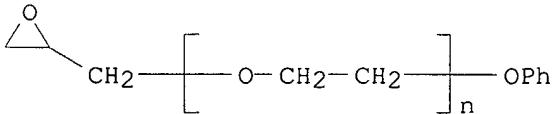
PRIORITY APPLN. INFO.: DE 1998-19849441 A 19981027

AB The title compds., which can be used in polymn. in decreased amts. to give polymer dispersions with good quality and processability, have degree of substitution (DS) 0.001-1, of which groups 0.01-0.1 are sulfoalkyl groups. Stirring cellulose 75.0, iso-PrOH 593, H₂O 103.6, 49.5% NaOH 40.0, and ethylene oxide 90.0 g at 40.degree. for 1 h and 80.degree. for 1 h, adding 6.4 g alkyl glycidyl ether (Grilonite RV 1814), stirring at 80.degree. for 2 h, adding 28.3% aq. Na vinylsulfonate, and stirring for 2-3 h gave 123.1 g cellulose ether with DS of hydroxyethyl, hydrophobic, and sulfoethyl groups 2.49, 0.006, and 0.07, resp. Use of the products in aq. polymn. (e.g., of Veova 10 with vinyl acetate) is exemplified.

IT 54140-67-9DP, Denacol EX 145, reaction products with hydroxyethyl sulfoethyl cellulose 86630-59-3DP, Denacol EX 171, reaction products with hydroxyethyl sulfoethyl cellulose 113189-11-0DP, reaction products with alkyl glycidyl ethers 113189-11-0P, 2-Hydroxyethyl 2-sulfoethyl cellulose 138988-65-5DP, Grilonit RV 1814, reaction products with hydroxyethyl sulfoethyl cellulose
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (prepn. of hydrophobic cellulose ethers bearing sulfoalkyl groups for use as protective colloids in polymn.)

RN 54140-67-9 HCAPLUS

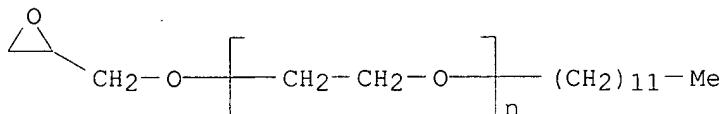
CN Poly(oxy-1,2-ethanediyl), .alpha.- (oxiranylmethyl)-.omega.-phenoxy- (9CI)
 (CA INDEX NAME)



RN 86630-59-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-dodecyl-.omega.- (oxiranylmethoxy)- (9CI)

(CA INDEX NAME)



RN 113189-11-0 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1

CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 113189-11-0 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

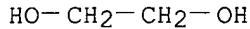
CM 2

CRN 107-36-8

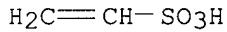
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2RN 138988-65-5 HCPLUS
CN Grilonit RV 1814 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 3039-83-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with cellulose)
RN 3039-83-6 HCPLUS
CN Ethenesulfonic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

● Na

IT 9004-34-6, Cellulose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with epoxides and Na vinylsulfonate)
RN 9004-34-6 HCPLUS
CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08B011-193
ICS C08B011-10; B01F017-52; C08B011-08
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 35
ST cellulose **sulfoalkyl** ether prepn; sulfoethyl hydroxyethyl
cellulose; glycidyl alkyl ether adduct cellulose; polymn aq protective
colloid; protective colloid **sulfoalkyl** cellulose
IT Epoxides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
((alkyloxy)methyl derivs., reaction products with hydroxyethyl
sulfoethyl cellulose; prepn. of hydrophobic **cellulose**
ethers bearing **sulfoalkyl** groups for use as
protective colloids in polymn.)
IT Polymerization
(aq.; prepn. of hydrophobic **cellulose ethers**
bearing **sulfoalkyl** groups for use as protective colloids in
polymn.)
IT Colloids
(protective; prepn. of hydrophobic **cellulose ethers**
bearing **sulfoalkyl** groups for use as protective colloids in
polymn.)
IT 54140-67-9DP, Denacol EX 145, reaction products with hydroxyethyl
sulfoethyl cellulose 86630-59-3DP, Denacol EX 171, reaction
products with hydroxyethyl sulfoethyl cellulose 113189-11-0DP,
reaction products with alkyl glycidyl ethers 113189-11-0P,

2-Hydroxyethyl 2-sulfoethyl cellulose **138988-65-5DP**, Grilonit RV
1814, reaction products with hydroxyethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(prepn. of hydrophobic **cellulose ethers** bearing
sulfoalkyl groups for use as protective colloids in polymn.)

IT **3039-83-6**

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with cellulose)

IT **9004-34-6**, Cellulose, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with epoxides and Na vinylsulfonate)

=> d ibib abs hitstr IND 3

L9 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1994:658255 HCPLUS
 DOCUMENT NUMBER: 121:258255
 TITLE: **Sulfoalkyl** group-containing alkyl
 hydroxyalkyl **cellulose ethers**,
 their preparation and use in building materials
 INVENTOR(S): Bartz, Uwe; Doenges, Reinhard; Klehr, Heiner
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 573852	A1	19931215	EP 1993-108579	19930527
EP 573852	B1	19971217		
R: AT, BE, CH, DE, ES, FR, IT, LI, NL, PT				
AT 161272	E	19980115	AT 1993-108579	19930527
CA 2097765	AA	19931207	CA 1993-2097765	19930604
AU 9340060	A1	19931209	AU 1993-40060	19930604
AU 661583	B2	19950727		
HU 64978	A2	19940328	HU 1993-1647	19930604
JP 06136001	A2	19940517	JP 1993-134907	19930604
IL 105911	A1	19970110	IL 1993-105911	19930604
DE 1992-4218738 19920606				

PRIORITY APPLN. INFO.: DE 1992-4218738 19920606
 AB Alkyl hydroxyalkyl **cellulose ethers**, prep'd. by
 etherification of cellulose in an alk. medium with an alkyl-,
 hydroxyalkyl-, and a **sulfoalkyl** group-contg. compd., can be used
 as constituents of building materials, e.g., mortar, based on Ca(OH)2,
 cement, or gypsum. Thus, the addn. 1toreq.5% of ethers such as Me
 hydroxyethyl sulfoethyl cellulose, Me hydroxypropyl sulfoethyl cellulose,
 and Me sulfoethyl cellulose to building materials gave compns. having good
 consistency and water retention.

IT 1305-62-0, Calcium hydroxide (Ca(OH)2), uses 13397-24-5,

Gypsum, uses

RL: USES (Uses)

(building materials based on, contg. alkyl hydroxyalkyl
sulfoalkyl cellulose ethers)

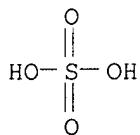
RN 1305-62-0 HCPLUS

CN Calcium hydroxide (Ca(OH)2) (9CI) (CA INDEX NAME)

HO—Ca—OH

RN 13397-24-5 HCPLUS

CN Gypsum (Ca(SO4).2H2O) (9CI) (CA INDEX NAME)



Ca

2 H₂O

IT 147625-76-1P 158766-31-5P 158766-33-7P

RL: PREP (Preparation)

(manuf. and use in building materials based on cement, gypsum or lime)

RN 147625-76-1 HCPLUS

CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

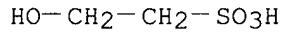
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

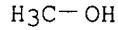
CM 2

CRN 107-36-8

CMF C₂ H₆ O₄ S

CM 3

CRN 67-56-1

CMF C H₄ O

RN 158766-31-5 HCPLUS

CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

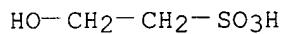
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

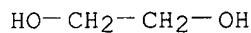
CM 2

CRN 107-36-8
CMF C2 H6 O4 S



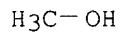
CM 3

CRN 107-21-1
CMF C2 H6 O2



CM 4

CRN 67-56-1
CMF C H4 O



RN 158766-33-7 HCPLUS
CN Cellulose, 2-hydroxypropyl methyl 2-sulfoethyl ether (9CI) (CA INDEX
NAME)

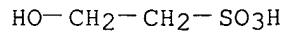
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

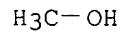
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

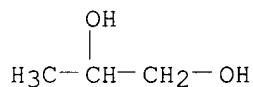


CM 3

CRN 67-56-1
CMF C H4 O



CM 4

CRN 57-55-6
CMF C3 H8 O2

IC ICM C08B011-193
ICS C08B011-10; C04B024-38

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 58

ST alkyl hydroxyalkyl **sulfoalkyl** cellulose prepn; building material
sulfoalkyl cellulose ether; cement
sulfoalkyl cellulose building material; gypsum **sulfoalkyl**
cellulose building material; lime **sulfoalkyl** cellulose building
material; methyl hydroxyethyl sulfoethyl cellulose; hydroxypropyl methyl
sulfoethyl cellulose

IT Building materials
(based on cement, gypsum or lime, contg. alkyl hydroxyalkyl
sulfoalkyl cellulose ethers)

IT Cement
(building materials based on, contg. alkyl hydroxyalkyl
sulfoalkyl cellulose ethers)

IT 1305-62-0, Calcium hydroxide (Ca(OH)2), uses 13397-24-5,
Gypsum, uses
RL: USES (Uses)
(building materials based on, contg. alkyl hydroxyalkyl
sulfoalkyl cellulose ethers)

IT 147625-76-1P 158766-31-5P 158766-33-7P
RL: PREP (Preparation)
(manuf. and use in building materials based on cement, gypsum or lime)

d. que 159

L1	47 SEA FILE=HCAPLUS ABB=ON	PLU=ON	DOENGES R?/AU
L2	200 SEA FILE=HCAPLUS ABB=ON	PLU=ON	KIRCHNER J?/AU
L3	246 SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L13 OR L2)
L4	16 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L3 AND CELLULOSE, ETHER
L5	3 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L4 AND ?SULFOALK?
L13	6242 SEA FILE=REGISTRY ABB=ON	PLU=ON	9004-34-6/CRN
L14	151 SEA FILE=REGISTRY ABB=ON	PLU=ON	L13 AND "SULFO"
L15	126 SEA FILE=REGISTRY ABB=ON	PLU=ON	L14 AND "ETHER" ← 151 (registry #)
L18	256 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L15 126 cites for → polymers
L20	26 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND (IONIC OR IONIZ? OR IONIS?)
L21	23 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L20 NOT (IONIC STRENGTH) I { claimed properties
L22	4 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND ?ANHYDRO?
L27	81 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 (L) PREP/RL
L30	49 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND ETHER?
L31	1 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND BASE
L32	3 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND CATAL?
L33	8 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND GLYCIDYL II { related to preparation
L34	7 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ?SULFONAT?
L35	5 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND (?SULFOALK? OR ?SULPHOALK?)
L36	0 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETHNESULFONI?
L37	0 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETHENESULFONI?
L38	0 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L5 AND ETHNESULF?
L39	0 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETHENESULFON? / OBI
L40	2 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND VINYLSUL?
L43	8927 SEA FILE=HCAPLUS ABB=ON	PLU=ON	EPOXIDES/CT
L44	51806 SEA FILE=HCAPLUS ABB=ON	PLU=ON	POLYOXYALKYLENES/CT
L46	8202 SEA FILE=HCAPLUS ABB=ON	PLU=ON	THICKENING AGENTS+OLD/CT
L47	14940 SEA FILE=HCAPLUS ABB=ON	PLU=ON	PAINTS+OLD/CT
L48	156970 SEA FILE=HCAPLUS ABB=ON	PLU=ON	COLLOIDS+OLD, NT/CT
L49	38962 SEA FILE=HCAPLUS ABB=ON	PLU=ON	EMULSIONS+NT/CT
L52	1 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND L43
L53	1 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND L44
L54	31 SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND (L46 OR L47 OR L48 OR L49)
L56	49 SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L57	2 SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L52 OR L53)
L58	49 SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L56 OR L57)
L59	2 SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L54 AND (L56 OR L57 OR L58))

AND (L20 OR L21 OR L22)

2 cites w/ I, II & III

→ L13-15 is the STRUCTURE SEARCH:

9004-34-6 = cellulose

9004-34-6/CRN finds all

Registered mixtures (including polymers) of which cellulose is a component.

L14 & L15 pull out cellulose ethers with an SO₃ moiety

=> ~~queue 161~~

L1	47	SEA FILE=HCAPLUS ABB=ON	PLU=ON	DOENGES R?/AU
L2	200	SEA FILE=HCAPLUS ABB=ON	PLU=ON	KIRCHNER J?/AU
L3	246	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L1 OR L2)
L4	16	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L3 AND CELLULOS? ETHER
L5	3	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L4 AND ?SULFOALK?
L13	6242	SEA FILE=REGISTRY ABB=ON	PLU=ON	9004-34-6/CRN
L14	151	SEA FILE=REGISTRY ABB=ON	PLU=ON	L13 AND "SULFO"
L15	126	SEA FILE=REGISTRY ABB=ON	PLU=ON	L14 AND "ETHER"
L18	256	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L15
L27	81	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 (L) PREP/RL
L30	49	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND ETHER?
L31	1	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND BASE
L32	3	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND CATAL?
L33	8	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L30 AND GLYCIDYL
L34	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ?SULFONAT?
L35	5	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND (?SULFOALK? OR ?SULPHOALK?)
L36	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETH!NESULFONI?
L37	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETHENESULFONI?
L38	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L5 AND ETH!NESULF?
L39	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND ETHENESULFON?/OBI
L40	2	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L33 AND VINYL SUL?
L43	8927	SEA FILE=HCAPLUS ABB=ON	PLU=ON	EPOXIDES/CT
L44	51806	SEA FILE=HCAPLUS ABB=ON	PLU=ON	POLYOXYALKYLENES/CT
L52	1	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND L43
L53	1	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L27 AND L44
L56	49	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40)
L57	2	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L52 OR L53)
L58	49	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L56 OR L57)
L61	39	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L58 AND (?CELLULOS? (3A) ETHER?)

=> d que 155

L13	6242	SEA FILE=REGISTRY ABB=ON	PLU=ON	9004-34-6/CRN
L14	151	SEA FILE=REGISTRY ABB=ON	PLU=ON	L13 AND "SULFO"
L15	126	SEA FILE=REGISTRY ABB=ON	PLU=ON	L14 AND "ETHER"
L18	256	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L15
L19	194381	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(WATER OR H20) (5A) (DISSOLV? OR ?SOLUBIL? OR MISCIB?)
L20	26	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND (IONIC OR IONIZ? OR IONIS?)
L21	23	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L20 NOT (IONIC STRENGTH)
L22	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND ?ANHYDRO?
L23	96	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND (?AQUEOUS? OR L19)
L25	12	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L21 AND L23
L26	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L22 AND L23
L55	16	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L25 OR L26)

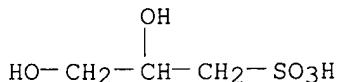
=> d ibib abs hitstr 1-52

163 ANSWER 1 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:422879 HCPLUS
 DOCUMENT NUMBER: 137:9814
 TITLE: Cement-dispersing agent comprising polymer mixture for concrete
 INVENTOR(S): Shiba, Daisuke; Sato, Haruyuki; Yamamuro, Hodaka
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002160954	A2	20020604	JP 2001-279162	20010914
PRIORITY APPLN. INFO.:			JP 2000-280314	A 20000914
AB The agent contains (A) a mixt. of copolymers or their salt obtained by polymg. monomers including (a) .gtoreq.1 of R1R3C:CR2(CH ₂) _m (CO)pO(AO) _n X [R1-2 = H, Me; m = 0-2; R3 = H, COO(AO) _n X; p = 0, 1; AO = C2-4 oxyalkylene or oxystyrene group; n = 2-300; X = H, C1-18 alkyl] and (b) .gtoreq.1 of R4R6C:CR5COOM ₁ [R4-6 = H, Me, (CH ₂) _m COOM ₂ (COOM ₂ may form anhydride with COOM ₁ or another COOM ₂); M1-2 = H, alkali metal, alk. earth metal, NH ₄ , (substituted) alkylammonium; m ₁ = 0-2], where the mol. ratio of (a)/(b) is changed at least once during the polymn. and (B) water-sol. polymer. The agent stabilizes fluidity and segregation resistance of prehardened concrete.				
IT	208471-51-6P, Hydroxyethyl cellulose stearyl glyceryl ether 3-sulfo-2-hydroxypropyl ether			
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)			
	(cement-dispersing agent contg. acrylic polyoxyalkylene and water-sol. polymer)			
RN	208471-51-6 HCPLUS			
CN	Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)			

CM 1

CRN 10296-76-1
 CMF C3 H8 O5 S

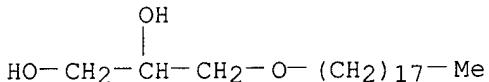


CM 2

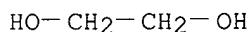
CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 544-62-7
CMF C21 H44 O3

CM 4

CRN 107-21-1
CMF C2 H6 O2

L63 ANSWER 2 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:114650 HCPLUS
 DOCUMENT NUMBER: 134:164720
 TITLE: Production of **cellulose ethers**
 INVENTOR(S): Thielking, Heiko; Koch, Wolfgang; Nachtkamp, Klaus; Ondruschka, Bernd; Nuechter, Matthias; Klemm, Dieter
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany; Friedrich-Schiller-Universitaet Jena
 SOURCE: Ger. Offen., 6 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19938502	A1	20010215	DE 1999-19938502	19990813
EP 1077220	A1	20010221	EP 2000-116159	20000801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001089501	A2	20010403	JP 2000-240760	20000809
NO 2000004038	A	20010214	NO 2000-4038	20000811
BR 2000003500	A	20011016	BR 2000-3500	20000811

PRIORITY APPLN. INFO.: DE 1999-19938502 A 19990813

AB **Cellulose ethers** are produced whereby cellulose in a first step (a) is activated and in a second step (b) is treated with one or more reagents optionally in the presence of a suspension aid, whereby reaction step b is carried out in an electromagnetic field with a frequency within the range of 10 MHz to 23 GHz. This process is characterized by short reaction times and minimal byproduct formation. CM-cellulose and sulfoethyl cellulose were obtained by this method.

IT 39277-57-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prodn. of **cellulose ethers** in electromagnetic field)

RN 39277-57-1 HCPLUS

CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

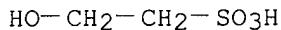
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



L63 ANSWER 3 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:75214 HCPLUS
 DOCUMENT NUMBER: 134:133138
 TITLE: Manufacture of (methyl- and hydroxyalkyl-substituted)
 sulfoalkyl-modified **cellulose ethers**
 as nonassociative thickeners for **aqueous**
 coating systems
 INVENTOR(S): Hoehl, Frank; Schlesiger, Hartwig; Kiesewetter, Rene
 PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany
 SOURCE: Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19935323	A1	20010201	DE 1999-19935323	19990728
WO 2001009254	A1	20010208	WO 2000-EP6800	20000717
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: DE 1999-19935323 A 19990728

AB **Water-sol., ionic cellulose ethers**, useful as thickeners for dispersion coatings, silicone resin-based or silicate coatings, were manufd. For example, cellulose linters was subjected to reaction with CH₂:CHSO₃Na in the presence of NaOH and the intermediate was ethoxylated with ethylene oxide to give hydroxyethyl sulfoethyl **cellulose ether** having hydroxyethyl group substitution degree (DS) 2.29 and sulfoethyl group DS of 0.08%. The product having viscosity 22,227 mPa.cndot.s (2% aq. soln.) was used as a thickener in a dispersion coating.

IT 158766-31-5DP, reaction products with glyoxal

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (crosslinked; manuf. of (methyl- and hydroxyalkyl-substituted) sulfoalkyl-modified cellulose ethers as nonassociative thickeners for aq. coatings)

RN 158766-31-5 HCPLUS

CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

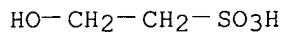
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

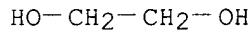
CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



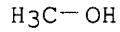
CM 3

CRN 107-21-1
 CMF C2 H6 O2



CM 4

CRN 67-56-1
 CMF C H4 O



IT 113189-11-0P, 2-Hydroxyethyl 2-sulfoethyl cellulose
 147881-56-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manuf. of (methyl- and hydroxyalkyl-substituted) sulfoalkyl-modified cellulose ethers as nonassociative thickeners for aq. coatings)

RN 113189-11-0 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

WHITE 09/955,864

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 147881-56-9 HCPLUS
CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

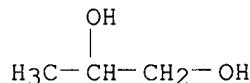
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 4 OF 52 HCPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:356784 HCPLUS
DOCUMENT NUMBER: 133:6051
TITLE: Manufacture of polysaccharide derivative solutions
having low viscosity

INVENTOR(S): Shibata, Kengo; Sakata, Masaru; Tsuyutani, Shinji;
 Ueyama, Tsuneo; Iwasaki, Shunya
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000143701	A2	20000526	JP 1998-320127	19981111
JP 3007622	B2	20000207		

AB The solns. contg. high concn. of polysaccharide derivs., useful as thickeners for cosmetics, etc. (no data), are manufd. by mixing 100 parts a polysaccharide having 1%-aq. soln. viscosity at 25.degree. of >1000 mPa.cntdot.s and bearing O-substituted hydrophobic groups and ionic hydrophilic groups with 10-1000 parts (meth)acrylic acid type polymers for reducing viscosity. Thus, derivatizing a hydroxyethyl cellulose with stearyl glycidyl ether (I) then with 3-chloro-2-hydroxypropanesulfonic acid Na salt (II) gave a hydroxyethyl cellulose deriv. (III) having degree of substitution for groups derived from I 0.002 and II 0.25, resp. Mixing 100 parts the III and 200 parts (meth)acrylic acid type polymer (no data) in water gave a 1% aq. soln. with viscosity 62 mPa.cntdot.s.

IT 270910-31-1 270910-32-2

RL: PEP (Physical, engineering or chemical process); PRP (Properties);
 PROC (Process)

(manuf. of polysaccharide deriv. solns. having low viscosity)

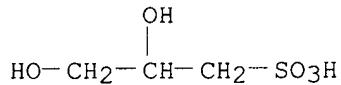
RN 270910-31-1 HCAPLUS

CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1

CMF C3 H8 O5 S



CM 2

CRN 9004-34-6

CMF Unspecified

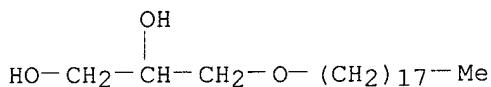
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

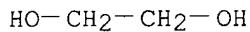
CM 3

CRN 544-62-7

CMF C21 H44 O3

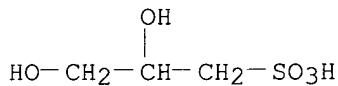


CM 4

CRN 107-21-1
CMF C2 H6 O2

RN 270910-32-2 HCAPLUS
 CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

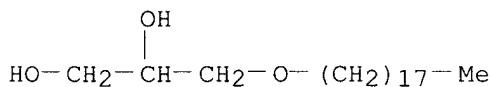
CRN 10296-76-1
CMF C3 H8 O5 S

CM 2

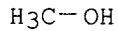
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 544-62-7
CMF C21 H44 O3

CM 4

CRN 67-56-1
CMF C H4 O

L63 ANSWER 5 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2000:127594 HCPLUS
 DOCUMENT NUMBER: 132:167435
 TITLE: Symplex membranes based on anionic **cellulose**
ether derivatives
 INVENTOR(S): Thielking, Heiko; Klohr, Erik-andreas; Koch, Wolfgang;
 Dautzenberg, Horst; Schwarz, Hans-hartmut; Knop,
 Susanne; Kulicke, Werner-michael
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
 SOURCE: Ger. Offen., 6 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19837673	A1	20000224	DE 1998-19837673	19980820
WO 2000010694	A1	20000302	WO 1999-EP5737	19990809
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9955117	A1	20000314	AU 1999-55117	19990809
EP 1115475	A1	20010718	EP 1999-941541	19990809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002523527	T2	20020730	JP 2000-566006	19990809
PRIORITY APPLN. INFO.:			DE 1998-19837673 A	19980820
			WO 1999-EP5737 W	19990809
AB	Symplex membranes based on sulfo-group-contg. anionic cellulose ether derivs. are useful for sepn. of water or water vapor from org. compds.			
IT	9032-46-6DP, Sulfoethyl cellulose, complexes with poly(diallyldimethylammonium chloride)			
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)			
	(symplex membranes based on anionic sulfo-group-contg. cellulose ether derivs. for sepn. of org. compds. from water)			
RN	9032-46-6 HCPLUS			
CN	Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)			

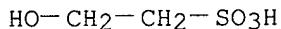
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



L63 ANSWER 6 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:127121 HCPLUS
 DOCUMENT NUMBER: 130:183895
 TITLE: Polymer thiosulfates for coating of metals
 PATENT ASSIGNEE(S): Universitaet Karlsruhe (Th), Germany
 SOURCE: Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19735368	A1	19990218	DE 1997-19735368	19970814
WO 9909088	A2	19990225	WO 1998-DE2314	19980811
WO 9909088	A3	19990415		
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9895301	A1	19990308	AU 1998-95301	19980811
EP 932637	A2	19990804	EP 1998-948770	19980811
R: DE, ES, FR, GB, IT				
US 6245579	B1	20010612	US 1999-284351	19990609
PRIORITY APPLN. INFO.:			DE 1997-19735368 A	19970814
			WO 1998-DE2314	W 19980811

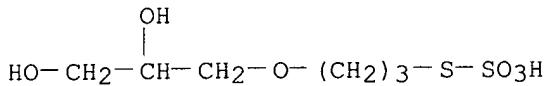
AB Polymer thiosulfates of specified structure, having no unpleasant odor, good H₂O solv., and low toxicity, form coatings on metals having good mech. properties and chem. resistance. Stirring 5.0 g microcryst. cellulose with 90 mL 25% NaOH for 48 h, adding 90 mL H₂O and 35.4 g allyl glycidyl ether, stirring for 2 h at room temp. and 6 days at 60. degree., cooling, neutralizing with HCl, ultrafiltering, and freeze drying gave 79.5% 3-(allyloxy)-2-hydroxypropyl cellulose, refluxing of which (1 g) with 3.18 g K tetrathionate in 100 mL H₂O for 2 days gave 0.44 g 3-[3-(thiosulfato)propoxy]-2-hydroxypropyl cellulose. Use of the products in coating of Au and Ag is exemplified.

IT 220648-47-5P, 3-[3-(Thiosulfato)propoxy]-2-hydroxypropyl cellulose
 220648-48-6P, Carboxymethyl 3-[3-(thiosulfato)propoxy]-2-hydroxypropyl cellulose
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer thiosulfates for coating of metals)

RN 220648-47-5 HCPLUS
 CN Cellulose, 2-hydroxy-3-[3-(sulfothio)propoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 220648-46-4
 CMF C6 H14 O6 S2



CM 2

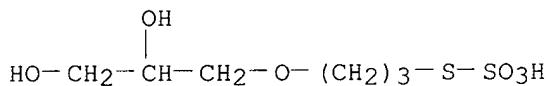
CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 220648-48-6 HCPLUS
 CN Cellulose, carboxymethyl 2-hydroxy-3-[3-(sulfothio)propoxy]propyl ether
 (9CI) (CA INDEX NAME)

CM 1

CRN 220648-46-4
 CMF C6 H14 O6 S2



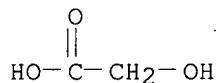
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 79-14-1
 CMF C2 H4 O3



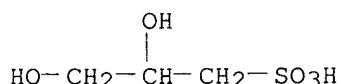
L63 ANSWER 7 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:49161 HCPLUS
 DOCUMENT NUMBER: 130:172809
 TITLE: Toothpastes containing substituted polysaccharides for
 good viscosity stability
 INVENTOR(S): Ohama, Tamotsu; Kitsuki, Tomohito; Miyajima, Tetsuya
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

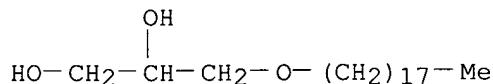
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 11012147	A2	19990119	JP 1997-168276	19970625
AB	Toothpastes contain polysaccharides or their derivs., in which H atoms of the OH groups are partially or totally substituted with (A) (OH-substituted) C10-43 linear or branched alkyl, alkenyl, or acyl which may have CO ₂ , OCO, or ether linkages [H atoms of the OH groups of (A) may be substituted with (A) or (B)] and (B) (OH-substituted) X1-5 sulfoalkyl or its salt [H atoms of the OH groups of (B) may be substituted with (A) or (B)] with av. degree of substitution of (A) and (B) of 0.0001-1.0 and 0.01-2.0, resp. Hydroxyethyl cellulose (HEC-QP 100M) was etherified with stearyl glycidyl ether and then sulfonated with Na 3-chloro-2- hydroxypropanesulfonate to give a deriv. showing the av. degree of substitution of 3-stearylxyloxy-2-hydroxypropyl and 3-sulfo-2-hydroxypropyl groups of 0.008 and 0.3, resp. The viscosity (3100 mPa-s) of a toothpaste contg. Al(OH)3 40.0, sorbitol 25.0, NaCl 18.5, the cellulose deriv. 0.5 wt.%, etc. remained unchanged (3400 mPa-s) after 14-days storage at 25.degree..				
IT	220480-29-5P RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation) ; USES (Uses) (toothpastes contg. substituted polysaccharides for good viscosity stability)				
RN	220480-29-5 HCPLUS				
CN	Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)				

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S

CM 2

CRN 544-62-7
CMF C21 H44 O3

CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
 CMF C2 H6 O2

HO—CH₂—CH₂—OH

L63 ANSWER 8 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1999:48351 HCPLUS
 DOCUMENT NUMBER: 130:172750
 TITLE: Hair preparations containing modified polysaccharides
 INVENTOR(S): Miyajima, Tetsuya; kohama, Tamotsu; Kitsuki, Tomohito
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

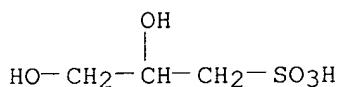
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
AB	JP 11012139	A2	19990119	JP 1997-168275	19970625	
AB	Hair preps. which show sufficient viscosity even with high concn. of salts and solvents, comprise (1) oxidants, reducing agents, film-forming polymers, oxidative dyes, and/or acidic dyes and (2) modified polysaccharides. Hydroxyethyl cellulose was treated with stearyl glycidyl ether, followed by 3-chloro-2-hydroxypropanesulfonic acid sodium salt to obtain a modified cellulose ether. A hair dye contained the above ether 1, benzyl alc. 3, citric acid 4, NaOH Q.S. to pH 3, ethanol 15, Black 401 0.03, Violet 401 0.04, Orange 205 0.03, and water to 100 %.					
IT	220480-29-5P	Hydroxyethyl cellulose 3-stearyl ether 2-hydroxypropyl ether, 3-sulfo 2-hydroxypropyl ether				
	220480-30-8P	Hydroxyethyl cellulose 3-stearyl ether 2-hydroxypropyl ether, sulfoethyl ether 220480-34-2P, Hydroxyethyl cellulose 3-stearyl ether 220482-42-8P, Hydroxyethyl cellulose 2-hydroxy-n-octadecyl ether, 3-sulfo-2-hydroxypropyl ether 220482-43-9P, Hydroxyethyl cellulose n-octadecyl ether, 3-sulfo-2-hydroxypropyl ether				
	220482-44-0P	Hydroxyethyl cellulose 1-oxo-n-octadecyl ether, 3-sulfo-2-hydroxypropyl ether				
	RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)					
RN	220480-29-5	HCPLUS (hair preps. contg. modified polysaccharides)				
CN	Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl					

WHITE 09/955,864

2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

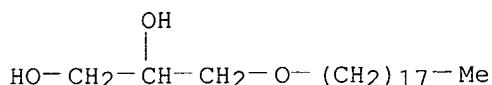
CM 1

CRN 10296-76-1
CMF C3 H8 O5 S



CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

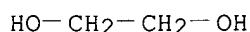
CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

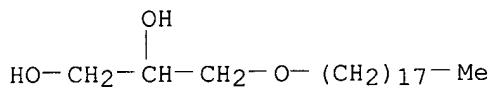
CRN 107-21-1
CMF C2 H6 O2



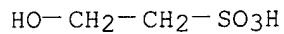
RN 220480-30-8 HCPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 544-62-7
CMF C21 H44 O3



CM 2

CRN 107-36-8
CMF C2 H6 O4 S

CM 3

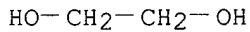
CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

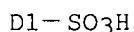
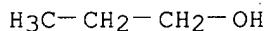
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

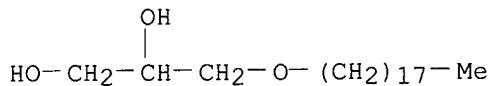
RN 220480-34-2 HCPLUS
 CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl
 sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDS

CM 2

CRN 544-62-7
 CMF C21 H44 O3



CM 3

CRN 9004-62-0
 CMF C2 H6 O2 . x Unspecified

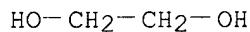
CM 4

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

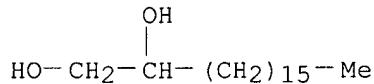
CRN 107-21-1
 CMF C2 H6 O2



RN 220482-42-8 HCPLUS
 CN Cellulose, 2-hydroxyethyl ether, 2-hydroxyoctadecyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

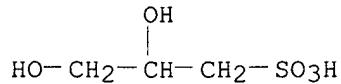
CM 1

CRN 20294-76-2
 CMF C18 H38 O2



CM 2

CRN 10296-76-1
 CMF C3 H8 O5 S



CM 3

CRN 9004-62-0
 CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

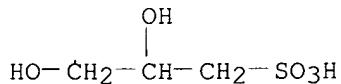
CRN 107-21-1
 CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 220482-43-9 HCPLUS
 CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-sulfopropyl octadecyl ether
 (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
 CMF C3 H8 O5 S



CM 2

CRN 112-92-5
 CMF C18 H38 O

HO—(CH₂)₁₇—Me

CM 3

CRN 9004-62-0
 CMF C2 H6 O2 . x Unspecified

CM 4

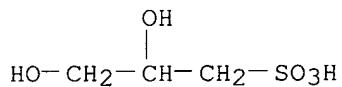
CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 220482-44-0 HCPLUS
CN Cellulose, 2-hydroxyethyl ether, octadecanoate, 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S

CM 2

CRN 57-11-4
CMF C18 H36 O2HO₂C—(CH₂)₁₆—Me

CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

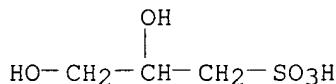
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OH

ACCESSION NUMBER: 1999:48348 HCAPLUS
 DOCUMENT NUMBER: 130:172768
 TITLE: Cosmetic makeups containing modified polysaccharides
 to improve powder dispersibility
 INVENTOR(S): Toritsu, Makoto; Akiyama, Eri; Shinozaki, Yoshio;
 Kitsuki, Tomohito
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AB	JP 11012131	A2	19990119	JP 1997-168733	19970625
AB	Water-resistant makeup compns. comprise (1) modified polysaccharides, (2) hydrophobically treated powders, and (3) water. Hydroxyethyl cellulose was treated with stearyl glycidyl ether , followed by 3-chloro-2-hydroxypropanesulfonic acid sodium salt to obtain a modified cellulose ether . A foundation contained the above ether 0.5, distd. water 38.9, polyoxyethylene oleyl ether 0.5, ethanol 5, titania 5, zinc oxide 1, ultrafine titania 5, nylon powder 3, red iron oxide 4, yellow iron oxide 2, black iron oxide 0.1, di-Me cyclosiloxanes 15, dimethylpolysiloxanes 15, and octyl methoxycinnamate 5 %.				
IT	208471-56-1P 208471-57-2P 208471-58-3P 220480-29-5P 220480-30-8P 220480-31-9P 220480-34-2P RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) ; USES (Uses) (cosmetic makeups contg. modified polysaccharides to improve powder dispersibility)				
RN	208471-56-1 HCAPLUS				
CN	Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether (9CI) (CA INDEX NAME)				
CM	1				
CRN	10296-76-1				
CMF	C3 H8 O5 S				



CM 2

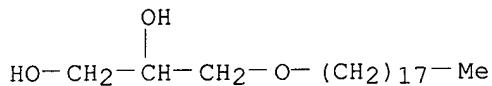
CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

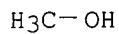
WHITE 09/955, 864

CRN 544-62-7
CMF C21 H44 O3



CM 4

CRN 67-56-1
CMF C H4 O



RN 208471-57-2 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl methyl 2-sulfoethyl ether
(9CI) (CA INDEX NAME)

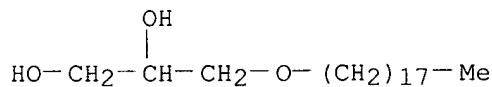
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

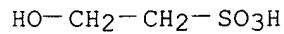
CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 67-56-1
CMF C H4 O

H₃C—OH

RN 208471-58-3 HCAPLUS
 CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

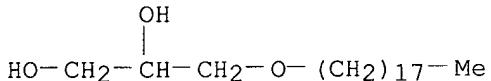
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 544-62-7
 CMF C₂₁ H₄₄ O₃



CM 3

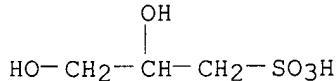
CRN 107-36-8
 CMF C₂ H₆ O₄ S

HO—CH₂—CH₂—SO₃H

RN 220480-29-5 HCAPLUS
 CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

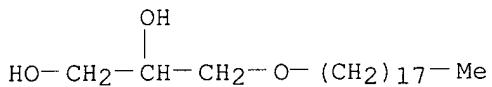
CM 1

CRN 10296-76-1
 CMF C₃ H₈ O₅ S



CM 2

CRN 544-62-7
 CMF C₂₁ H₄₄ O₃



CM 3

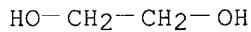
CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

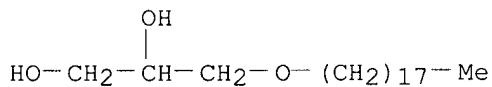
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

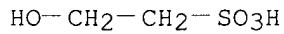
CM 5

CRN 107-21-1
CMF C2 H6 O2RN 220480-30-8 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 544-62-7
CMF C21 H44 O3

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

WHITE 09/955, 864

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 220480-31-9 HCPLUS
CN Cellulose, 2-hydroxyethyl ether, 3-(hexadecyloxy)-2-hydroxypropyl
2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 6145-69-3
CMF C₁₉ H₄₀ O₃

HO—CH₂—CH—CH₂—O—(CH₂)₁₅—Me

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 9004-62-0
CMF C2 H6 O2 . x Unspecified

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 220480-34-2 HCPLUS

CN Cellulose, 2-hydroxyethyl ether, 2-hydroxy-3-(octadecyloxy)propyl sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0

CMF C₃ H₈ O₄ S

CCI IDS

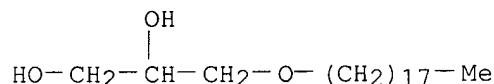
H₃C—CH₂—CH₂—OH

D1—SO₃H

CM 2

CRN 544-62-7

CMF C₂₁ H₄₄ O₃



CM 3

CRN 9004-62-0

CMF C₂ H₆ O₂ x Unspecified

CM 4

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1

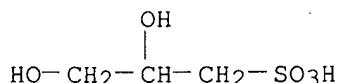
CMF C₂ H₆ O₂

HO—CH₂—CH₂—OH

ACCESSION NUMBER: 1998:795490 HCAPLUS
 DOCUMENT NUMBER: 130:111692
 TITLE: Polysaccharide **sulfoalkyl** derivatives and
 their manufacture
 INVENTOR(S): Kitsuki, Tomohito; Inohara, Takeshi; Miyajima, Tetsuya
 PATENT ASSIGNEE(S): Kao Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AB	JP 10330401	A2	19981215	JP 1997-141597	19970530
AB	The derivs. have (OH-substituted) Cl-5 sulfoalkyl substitution degree of 0.01-2.0. Optionally, residual OH groups in the polysaccharides may be crosslinked with polyol polyglycidyl ethers . The polysaccharide derivs. are manufd. by reacting polysaccharides or their derivs. with sulfonation agents selected from vinylsulfonic acids, (OH-substituted) halo-C1-5-alkanesulfonic acids, or their salts and optionally with polyol polyglycidyl ethers . The polysaccharide derivs. are useful as thickeners or other additives for construction materials, water-thinned coatings, cosmetics, etc. to give good dispersion stability and flowability of the compns. even in the presence of metal salts. Thus, hydroxyethyl cellulose (HEC-QP 100MH) was etherified with Na 3-chloro-2- hydroxypropanesulfonate to give a cellulose deriv. with sulfonation degree 0.143. Addn. of the 3-sulfo-2-hydroxypropyl cellulose deriv. to mortar improved its dispersion stability and flowability.				
IT	219607-19-9P, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl ether 219607-20-2P, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl ether -diethylene glycol diglycidyl ether copolymer 219607-21-3P, Hydroxyethyl cellulose 3-sulfo-2-hydroxypropyl ether -poly(ethylene glycol) copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manuf. of polysaccharide sulfoalkyl derivs. for use as thickeners or dispersants)				
RN	219607-19-9 HCAPLUS				
CN	Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)				

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S

CM 2

CRN 9004-34-6

CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-21-1
 CMF C2 H6 O2

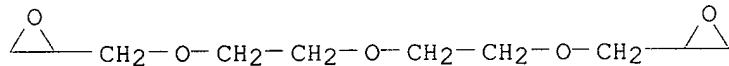
HO—CH₂—CH₂—OH

RN 219607-20-2 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether, polymer with 2,2'—[oxybis(2,1-ethanediylloxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 4206-61-5
 CMF C10 H18 O5

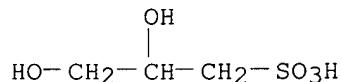


CM 2

CRN 219607-19-9
 CMF C3 H8 O5 S . x C2 H6 O2 . x Unspecified

CM 3

CRN 10296-76-1
 CMF C3 H8 O5 S



CM 4

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
 CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 219607-21-3 HCPLUS

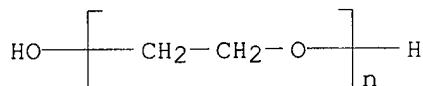
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C₂ H₄ O)_n H₂ O

CCI PMS



CM 2

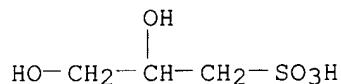
CRN 219607-19-9

CMF C₃ H₈ O₅ S . x C₂ H₆ O₂ . x Unspecified

CM 3

CRN 10296-76-1

CMF C₃ H₈ O₅ S



CM 4

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1

CMF C₂ H₆ O₂

HO—CH₂—CH₂—OH

DOCUMENT NUMBER: 129:55654
 TITLE: Polysaccharide derivatives and hydraulic compositions
 INVENTOR(S): Yamamuro, Hotaka; Ihara, Takeshi; Kitsuki, Tomohito;
 Miyajima, Tetsuya; Yamato, Fujio; Kohama, Makoto
 PATENT ASSIGNEE(S): Kao Corporation, Japan; Yamamuro, Hotaka; Ihara,
 Takeshi; Kitsuki, Tomohito; Miyajima, Tetsuya; Yamato,
 Fujio; Kohama, Makoto
 SOURCE: PCT Int. Appl., 75 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9823647	A1	19980604	WO 1997-JP4316	19971126
W: CN, ID, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 10158047	A2	19980616	JP 1996-316166	19961127
JP 10292001	A2	19981104	JP 1997-103038	19970421
JP 3329689	B2	20020930		
JP 11001355	A2	19990106	JP 1997-156793	19970613
JP 3260100	B2	20020225		
JP 11012012	A2	19990119	JP 1997-162289	19970619
JP 11012011	A2	19990119	JP 1997-162637	19970619
EP 879826	A1	19981125	EP 1997-913448	19971126
EP 879826	B1	20021023		
R: DE, ES, FR, GB				
CN 1209812	A	19990303	CN 1997-191877	19971126
CN 1093136	B	20021023		
TW 475922	B	20020211	TW 1997-86117795	19971126
EP 1251111	A1	20021023	EP 2002-16399	19971126
R: DE, ES, FR, GB				
US 6068697	A	20000530	US 1998-101632	19980714
PRIORITY APPLN. INFO.:			JP 1996-316166	A 19961127
			JP 1997-103038	A 19970421
			JP 1997-156793	A 19970613
			JP 1997-162289	A 19970619
			JP 1997-162637	A 19970619
			EP 1997-913448	A3 19971126
			WO 1997-JP4316	W 19971126

AB Polysaccharide derivs. are disclosed which have some or all of the hydroxyl groups being substituted by hydrophobic substituent(s) (A) having, as the partial structure, a C8-43 hydrocarbyl group, and ionic hydrophilic substituent(s) (B) having, as the partial structure, sulfonate, carboxyl, phosphate or/and sulfate groups and salts thereof, and an av. degree of substitution A, detd. by Zeisel's method or the diazomethane method, of 0.0001-0.001 and an av. degree of substitution B, detd. by the colloidal titrn. method, of 0.01-2.0. These derivs. are useful as chem. admixts. for hydraulic materials, e.g., cement, and give hydraulic compns. excellent in dispersibility and stability. An example of the derivs. was hydroxyethyl cellulose derivatized to bear 3-stearyloxy-2-hydroxypropyl and 3-sulfo-2-hydroxypropyl groups.
 IT 208349-42-2P 208471-51-6P, Hydroxyethyl cellulose
 3-stearyloxy-2-hydroxypropyl 3-sulfo-2-hydroxypropyl ether
 208471-52-7P 208471-53-8P 208471-54-9P
 208471-55-0P 208471-56-1P 208471-57-2P
 208471-58-3P 208471-59-4P 208471-60-7P
 208471-61-8P 208471-62-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polysaccharide derivs. as assistants for hydraulic compns.)

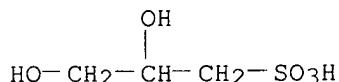
RN 208349-42-2 HCPLUS

CN Cellulose, octadecanoate, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl ether
 (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1

CMF C3 H8 O5 S



CM 2

CRN 9004-34-6

CMF Unspecified

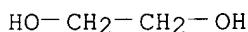
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-21-1

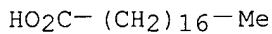
CMF C2 H6 O2



CM 4

CRN 57-11-4

CMF C18 H36 O2



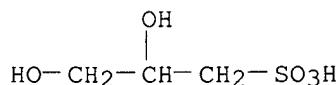
RN 208471-51-6 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl
 2-hydroxy-3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1

CMF C3 H8 O5 S



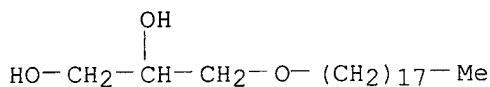
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

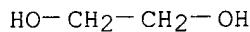
CM 3

CRN 544-62-7
 CMF C21 H44 O3



CM 4

CRN 107-21-1
 CMF C2 H6 O2



RN 208471-52-7 HCPLUS
 CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

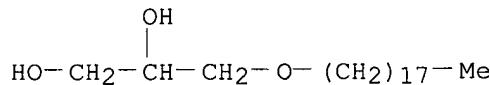
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 544-62-7
 CMF C21 H44 O3



CM 3

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 4

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 208471-53-8 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octadecyloxy)propyl 3-sulfopropyl
ether (9CI) (CA INDEX NAME)

CM 1

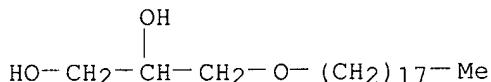
CRN 15909-83-8
CMF C3 H8 O4 SHO—(CH₂)₃—SO₃H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

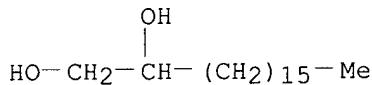
CM 3

CRN 544-62-7
CMF C21 H44 O3

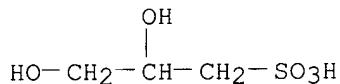
CM 4

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 208471-54-9 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 2-hydroxy-3-sulfopropyl ether
(9CI) (CA INDEX NAME)

CM 1

CRN 20294-76-2
CMF C18 H38 O2

CM 2

CRN 10296-76-1
CMF C3 H8 O5 S

CM 3

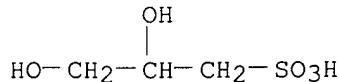
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 107-21-1
CMF C2 H6 O2HO-CH₂-CH₂-OHRN 208471-55-0 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-sulfopropyl octadecyl ether (9CI)
(CA INDEX NAME)

CM 1

CRN 10296-76-1
CMF C3 H8 O5 S

CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 112-92-5
 CMF C18 H38 O

HO—(CH₂)₁₇—Me

CM 4

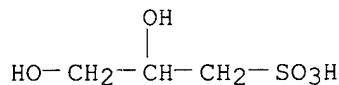
CRN 107-21-1
 CMF C₂ H₆ O₂

HO—CH₂—CH₂—OH

RN 208471-56-1 HCAPLUS
 CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-hydroxy-3-sulfopropyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 10296-76-1
 CMF C₃ H₈ O₅ S



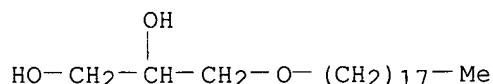
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 544-62-7
 CMF C₂₁ H₄₄ O₃



CM 4

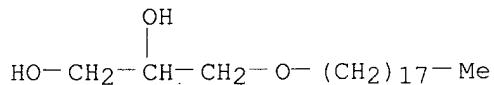
CRN 67-56-1
CMF C H4 OH₃C—OHRN 208471-57-2 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl methyl 2-sulfoethyl ether
(9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 544-62-7
CMF C21 H44 O3

CM 3

CRN 107-36-8
CMF C2 H6 O4 SHO—CH₂—CH₂—SO₃H

CM 4

CRN 67-56-1
CMF C H4 OH₃C—OHRN 208471-58-3 HCAPLUS
CN Cellulose, 2-hydroxy-3-(octadecyloxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

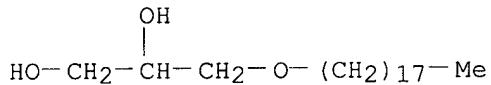
WHITE 09/955, 864

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

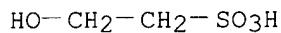
CM 2

CRN 544-62-7
CMF C21 H44 O3



CM 3

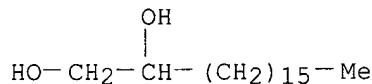
CRN 107-36-8
CMF C2 H6 O4 S



RN 208471-59-4 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 20294-76-2
CMF C18 H38 O2



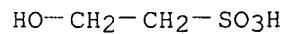
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

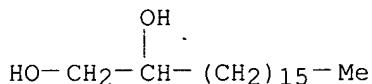
CRN 107-36-8
CMF C2 H6 O4 S



CM 4

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 208471-60-7 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxyoctadecyl 3-sulfopropyl ether (9CI)
(CA INDEX NAME)

CM 1

CRN 20294-76-2
CMF C18 H38 O2

CM 2

CRN 15909-83-8
CMF C3 H8 O4 SHO—(CH₂)₃—SO₃H

CM 3

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

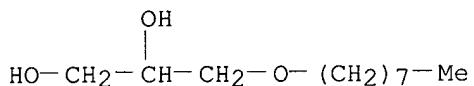
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 208471-61-8 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(octyloxy)propyl 2-sulfoethyl ether
(9CI) (CA INDEX NAME)

CM 1

CRN 10438-94-5
CMF C11 H24 O3



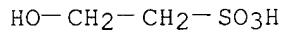
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

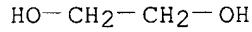
CM 3

CRN 107-36-8
 CMF C2 H6 O4 S



CM 4

CRN 107-21-1
 CMF C2 H6 O2



RN 208471-62-9 HCAPLUS
 CN Cellulose, 3-(hexadecyloxy)-2-hydroxypropyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

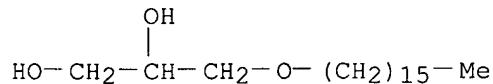
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 6145-69-3
 CMF C19 H40 O3



CM 3

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 4

CRN 107-21-1
 CMF C2 H6 O2

HO—CH₂—CH₂—OH

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 12 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1998:388423 HCPLUS
 DOCUMENT NUMBER: 129:44240
 TITLE: Hydrocolloids and mixtures of hydrocolloids as additives for drilling mud, and especially as foaming agents and foam stabilizers in tunnel construction by advancing-shield method, especially for shield systems operating with soil pressure
 INVENTOR(S): Pannek, Jorn-Bernd; Kiesewetter, Rene; Voigt, Thomas
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
 SOURCE: Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 846842	A1	19980610	EP 1997-120716	19971126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
DE 19651042	A1	19980610	DE 1996-19651042	19961209
JP 10168437	A2	19980623	JP 1997-354038	19971209
PRIORITY APPLN. INFO.: DE 1996-19651042 19961209				
AB The hydrocolloids contain .gtoreq.1 water-sol. and .gtoreq.1 water-insol. biopolymers, esp. water-sol. and water-insol. polysaccharides, e.g., cellulose ethers, and a surfactant. These compns. enhance the ecotoxic value of the soils for landfill.				
IT 9032-46-6	Sulfoethylcellulose			
RL: NUU (Other use, unclassified); USES (Uses) (hydrocolloid compns. contg. surfactants and; as foaming agents and foam stabilizers for drilling mud in tunnel construction by advancing-shield method)				
RN 9032-46-6	HCPLUS			
CN Cellulose, 2-sulfoethyl ether (9CI)	(CA INDEX NAME)			

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 13 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1997:107354 HCPLUS
 DOCUMENT NUMBER: 126:121473
 TITLE: Use of **water-soluble** cellulose
 mixed ethers as additives for earth pressure balance
 shield tunneling
 INVENTOR(S): Szablikowski, Klaus; Lange, Werner; Pannek,
 Joern-Bernd; Kiesewetter, Rene
 PATENT ASSIGNEE(S): Wolff Walsrode Ag, Germany
 SOURCE: Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19521693	A1	19961219	DE 1995-19521693	19950614
EP 750027	A1	19961227	EP 1996-108859	19960603
R: BE, DE, FI, FR, GB, IT, NL, SE				
JP 09003451	A2	19970107	JP 1996-168704	19960610
US 5808052	A	19980915	US 1996-662751	19960610
DE 1995-19521693 19950614				

PRIORITY APPLN. INFO.: DE 1995-19521693 19950614
 AB **Water-sol.**, esp. ternary (e.g., ternary **ionic**) cellulose mixed ethers are used as additives for drilling rinses. Optionally, a mixt. of the cellulose mixed ethers and surfactants is used. The additives function as foam-generating or foam-stabilizing components. The additives are esp. suitable for the earth pressure balance shield technique with foam injection for machine tunneling for subway construction and placement of water pipelines, gas pipelines, and telecommunication cables.

IT 113189-11-0 147881-56-9
 RL: MOA (Modifier or additive use); USES (Uses)
 (as additive for earth pressure balance shield tunneling)

RN 113189-11-0 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

WHITE 09/955,864

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 147881-56-9 HCAPLUS
CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

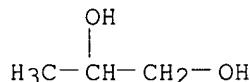
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 57-55-6
CMF C3 H8 O2



L63 ANSWER 14 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:49294 HCAPLUS
DOCUMENT NUMBER: 126:119252

TITLE: Alkyl hydroxyalkyl **cellulose ethers**
 containing sulfoalkyl groups
 INVENTOR(S): Bartz, Uwe; Donges, Reinhard; Klehr, Heiner
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,395,930.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5591844	A	19970107	US 1994-345912	19941128
US 5395930	A	19950307	US 1993-72736	19930607
PRIORITY APPLN. INFO.:			DE 1992-4218738	19920606
			US 1993-72736	19930607

AB Alkyl hydroxyalkyl **cellulose ethers** which contain a sulfoalkyl group as a further substituent, a process for their prepn., and construction material mixts. which are based on gypsum, hydrated lime, or cement and contain alkyl hydroxyalkyl **cellulose ethers** contg. sulfoalkyl groups are described. The **ethers** are prep'd. by a process comprising: (a) alkalizing the cellulose; (b) adding a compd. transferring OH groups; (c) if necessary, adding further alkalizing agent; and (d) adding a compd. transferring alkyl groups; wherein (e) the addn. of the compd. transferring sulfoalkyl groups is already made during process step (a), but at the latest before process step (d). Thus, ground cellulose pulp was alkalized with aq. NaOH, and aq. Na vinylsulfonate soln. was added and mixed. The mixt. was evacuated and blanketed with N₂ and a mixt. of Me chloride and ethylene oxide was injected for **etherification** for 60 min at 80-90.degree.. The Me hydroxyethyl sulfoethyl cellulose (I) was washed with hot water, dried, and finely ground. Construction material mixts. contg. I had good water retention capacity.

IT 147625-76-1P, Methyl sulfoethyl cellulose 158766-31-5P,
 Methyl hydroxyethyl sulfoethyl cellulose 158766-33-7P, Methyl hydroxypropyl sulfoethyl cellulose
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP**
(Preparation)

(prepn. of alkyl hydroxyalkyl **cellulose ethers**
 contg. sulfoalkyl groups for water retention agents for building materials)

RN 147625-76-1 HCAPLUS

CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 67-56-1
CMF C H₄ O

H₃C—OH

RN 158766-31-5 HCPLUS
CN Cellulose, 2-hydroxyethyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C₂ H₆ O₄ S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C₂ H₆ O₂

HO—CH₂—CH₂—OH

CM 4

CRN 67-56-1
CMF C H₄ O

H₃C—OH

RN 158766-33-7 HCPLUS
CN Cellulose, 2-hydroxypropyl methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

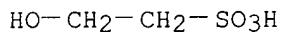
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

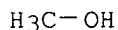
CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



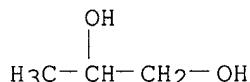
CM 3

CRN 67-56-1
 CMF C H4 O



CM 4

CRN 57-55-6
 CMF C3 H8 O2



L63 ANSWER 15 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1996:80503 HCPLUS
 DOCUMENT NUMBER: 124:205309
 TITLE: Preparation of sulfoalkyl derivatives of cellulose and
 other polysaccharides and assay of their anti-HIV
 activity
 AUTHOR(S): Ishikuro, Toshiyuki; Inoue, Satoru; Meshitsuka,
 Gyousuke; Ishizu, Atsushi; Murakami, Kunichika;
 Watanabe, Kazuhiro
 CORPORATE SOURCE: Faculty Agriculture, Univ. Tokyo, Tokyo, 113, Japan
 SOURCE: Sen'i Gakkaishi (1995), 51(12), 571-9
 CODEN: SENGA5; ISSN: 0037-9875
 PUBLISHER: Sen'i Gakkai
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The preps. of highly substituted sulfoethyl- and sulfopropyl-celluloses
 were attempted by the general **etherification** method of
cellulose, by the method of Isogai and by the method of Kondo,
 using sodium 2-bromoethyl sulfonate and propanesultone. Sulfopropylations
 of curdlan and dextran were carried out, and the prep. of
 1-sulfopropylcellulose by the radical addn. of bisulfite to allylcellulose
 was also attempted. Treatment of cellulose acetate dissolved in DMSO with

powd. NaOH and propanesultone, the method of Kondo, was the best way to prep. a sulfoalkyl deriv. of high degree of substitution (DS). Sulfoalkyl-celluloses together with sulfopropyl-curdian and -dextran were assayed for anti-HIV activity by the improved MTT method. Activity was found for sulfopropylcelluloses having DS >1.24, although this activity was inferior to that of a dextran sulfate.

IT 9032-46-6P, Sulfoethyl cellulose 37325-18-1P,
 Sulfopropyl cellulose
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
 (prepn. of sulfoalkyl derivs. of cellulose and other polysaccharides and assay of their anti-HIV activity)

RN 9032-46-6 HCAPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

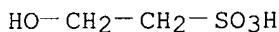
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

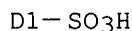
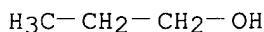
CRN 107-36-8
 CMF C2 H6 O4 S



RN 37325-18-1 HCAPLUS
 CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
 CMF C3 H8 O4 S
 CCI IDS



CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 16 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:267017 HCAPLUS
 DOCUMENT NUMBER: 122:33777
 TITLE: Highly substituted sulfoalkyl cellulose derivatives,
 especially sulfoalkyl cellulose
 ethers, their manufacture and use in
 thickeners for textile printing pastes
 INVENTOR(S): Kiesewetter, Rene; Knewske, Reinhard; Reinhardt,
 Eugen; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
 SOURCE: Ger. Offen., 8 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4243281	A1	19940623	DE 1992-4243281	19921221
EP 603648	A1	19940629	EP 1993-119765	19931208
EP 603648	B1	19970423		
R: BE, DE, FR, IT, NL, SE				
US 5442054	A	19950815	US 1993-166402	19931214
JP 06220101	A2	19940809	JP 1993-342258	19931215
FI 9305706	A	19940622	FI 1993-5706	19931217

PRIORITY APPLN. INFO.: DE 1992-4243281 19921221
 AB Sulfoalkyl cellulose derivs., esp. sulfoethyl cellulose, have a degree of substitution of sulfoethyl groups of 1.2-2.0, esp. 1.4-1.8, are prep'd. by a 2-step process and used as thickeners or rheol. improvers in textile printing, esp. in reactive printing. Sulfoethyl cellulose with a degree of substitution of 1.42 was prep'd. by a 2-step reaction and used in a reactive dye-contg. print paste for a cotton textile giving results comparable to CMC, but with improved color strength.
 IT 9032-46-6P, Sulfoethyl cellulose
 RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
 (manuf. and use as thickeners for textile printing pastes)
 RN 9032-46-6 HCAPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

L63 ANSWER 17 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1994:658261 HCAPLUS

DOCUMENT NUMBER: 121:258261
 TITLE: Highly substituted carboxymethyl sulfoethyl cellulose ethers for use in textile printing pastes
 INVENTOR(S): Kiesewetter, Rene; Kniewske, Reinhard; Reinhardt, Eugen; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
 SOURCE: Ger. Offen., 11 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4241286	A1	19940609	DE 1992-4241286	19921208
EP 601403	A1	19940615	EP 1993-118985	19931125
EP 601403	B1	19971029 R: AT, BE, DE, FR, IT, NL, SE AT 159729 E 19971115		
JP 06206902	A2	19940726	AT 1993-118985	19931125
JP 3222000	B2	20011022	JP 1993-329578	19931202
FI 9305466	A	19940609	FI 1993-5466	19931207
CN 1093712	A	19941019	CN 1993-120888	19931208

PRIORITY APPLN. INFO.: DE 1992-4241286 A 19921208

AB Highly substituted carboxymethyl sulfoethyl cellulose (I) ethers, useful as thickeners in textile printing pastes, are manufd. by a 2-step alkalization-etherification process. Thus, a finely ground, bleached, refined cellulose pulp from cotton linters was reacted with monochloroacetic acid, NaOH, and Na vinylsulfonate in a 2-step alkalization-etherification process to give I having a substitution degree for sulfoethyl groups of 0.25 and for carboxymethyl groups of 1.42.

IT 39454-65-4P, Carboxymethyl sulfoethyl cellulose
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(manuf. of highly substituted carboxymethyl sulfoethyl cellulose ethers for use in textile printing pastes)

RN 39454-65-4 HCAPLUS

CN Cellulose, carboxymethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

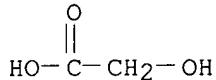
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 79-14-1
CMF C2 H4 O3

L63 ANSWER 18 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1994:658260 HCPLUS
 DOCUMENT NUMBER: 121:258260
 TITLE: Highly substituted carboxymethyl sulfoethyl cellulose ether for use as thickener in textile printing
 INVENTOR(S): Kiesewetter, Rene; Knewske, Reinhard; Reinhardt, Eugen; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode AG, Germany
 SOURCE: Ger. Offen., 8 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4241289	A1	19940609	DE 1992-4241289	19921208
EP 601404	A1	19940615	EP 1993-118986	19931125
EP 601404	B1	19971022		
R: AT, BE, DE, FR, IT, NL, SE				
AT 159535	E	19971115	AT 1993-118986	19931125
US 5455341	A	19951003	US 1993-160709	19931201
JP 06211901	A2	19940802	JP 1993-339622	19931203
JP 3219924	B2	20011015		
FI 9305467	A	19940609	FI 1993-5467	19931207
CN 1093372	A	19941012	CN 1993-120890	19931208
CN 1040004	B	19980930		

PRIORITY APPLN. INFO.: DE 1992-4241289 A 19921208
 AB A highly substituted carboxymethyl sulfoethyl cellulose (I) is manufd. by a simple, economical etherification process for use as thickening agents in textile printing. Thus, finely ground, bleached, refined cellulose pulp from cotton linters was reacted with monochloroacetic acid, NaOH, and Na vinylsulfonate in iso-PrOH and water to give I having a total degree of substitution of 1.82. I was used as a thickener in textile printing.
 IT 39454-65-4P, Carboxymethyl sulfoethyl cellulose
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (highly substituted carboxymethyl sulfoethyl cellulose for thickener in textile printing)
 RN 39454-65-4 HCPLUS
 CN Cellulose, carboxymethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

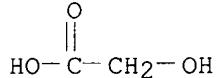
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 79-14-1
CMF C2 H4 O3



L63 ANSWER 19 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1994:329880 HCPLUS
 DOCUMENT NUMBER: 120:329880
 TITLE: Ionic, water-soluble, sulfoalkyl-modified, especially sulfoethyl-modified cellulose derivatives as additives for cement- and gypsum-containing plaster compositions
 INVENTOR(S): Kiesewetter, Rene; Szablikowski, Klaus; Lange, Werner
 PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany
 SOURCE: Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 554751	A1	19930811	EP 1993-101076	19930125
EP 554751	B1	19990707		
R: BE, DE, FR, GB, IT, NL, SE				
DE 4203530	A1	19930812	DE 1992-4203530	19920207
US 5358561	A	19941025	US 1993-9536	19930127
JP 05301756	A2	19931116	JP 1993-33942	19930201
JP 3237796	B2	20011210		

PRIORITY APPLN. INFO.: DE 1992-4203530 A 19920207
 AB The derivs. have degree of sulfoethyl substitution 0.001-0.6, esp. 0.01-0.5. At water/cement ratio 0.48 and viscosity 9,250 mPa.s, hydroxypropylsulfoethylcellulose (av. degree of sulfoethyl substitution 0.05) gave slump 168 mm, and water retention 94.7, vs. 0.46 and 92.0, resp. for Walcocel M (methylhydroxyethylcellulose).
 IT 113189-11-0 147625-76-1 147881-56-9
 155215-39-7 155215-40-0 155328-03-3

WHITE 09/955,864

RL: MOA (Modifier or additive use); USES (Uses)
(plasticizers, ionic, water-sol., for
cement and gypsum)

RN 113189-11-0 HCAPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 147625-76-1 HCAPLUS

CN Cellulose, methyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 67-56-1
CMF C H4 O

$\text{H}_3\text{C}-\text{OH}$

RN 147881-56-9 HCAPLUS

CN Cellulose, 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

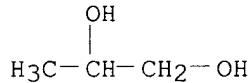
CMF C2 H6 O4 S

 $\text{HO}-\text{CH}_2-\text{CH}_2-\text{SO}_3\text{H}$

CM 3

CRN 57-55-6

CMF C3 H8 O2



RN 155215-39-7 HCAPLUS

CN Cellulose, hydroxybutyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 25265-75-2

CMF C4 H10 O2

CCI IDS

 $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_3$

2 (D1-OH)

CM 2

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

WHITE 09/955,864

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 4

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 155215-40-0 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA
INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

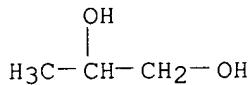
CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

CM 4

CRN 57-55-6
CMF C3 H8 O2



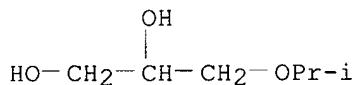
RN 155328-03-3 HCAPLUS

CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(1-methylethoxy)propyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 17226-43-6

CMF C6 H14 O3



CM 2

CRN 9004-34-6

CMF Unspecified

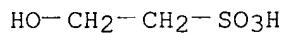
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8

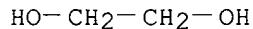
CMF C2 H6 O4 S



CM 4

CRN 107-21-1

CMF C2 H6 O2



L63 ANSWER 20 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:306034 HCAPLUS

DOCUMENT NUMBER: 120:306034

TITLE: **Water-soluble sulfoalkyl-hydroxyalkyl cellulose derivatives, and their use in cement and/or gypsum compositions**INVENTOR(S): Kiesewetter, Rene; Szablikowski, Klaus; Lange, Werner
PATENT ASSIGNEE(S): Wolff Walsrode Aktiengesellschaft, Germany

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 554749	A2	19930811	EP 1993-101074	19930125
EP 554749	A3	19930929		
EP 554749	B1	19970507		
R: BE, DE, FR, GB, IT, NL, SE				
DE 4203529	A1	19930812	DE 1992-4203529	19920207
US 5385607	A	19950131	US 1993-9538	19930127
JP 05301901	A2	19931116	JP 1993-33951	19930201
JP 3219889	B2	20011015		

PRIORITY APPLN. INFO.: DE 1992-4203529 A 19920207
 AB The cellulose derivs. have degree of sulfoethyl substitution 0.001-0.6, esp. 0.01-0.5. These derivs. improve the plasticity of the compns. At water/cement ratio 0.46, hydroxyethylhydroxybutylsulfoethylcellulose [viscosity (described) 13,020 mPa.s] gave slump 168 mm and water redn. 93.8%, vs. 166 and 92.0, resp. for Walocel M (Methylhydroxyethylcellulose)

IT 155215-39-7 155215-40-0 155328-03-3
 RL: MOA (Modifier or additive use); USES (Uses)
 (plasticizer, ionic, water-sol., for
 cement and gypsum)
 RN 155215-39-7 HCAPLUS
 CN Cellulose, hydroxybutyl 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX
 NAME)

CM 1

CRN 25265-75-2
 CMF C4 H10 O2
 CCI IDS

H₃C—CH₂—CH₂—CH₃

2 (D1—OH)

CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 4

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OHRN 155215-40-0 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxypropyl 2-sulfoethyl ether (9CI) (CA
INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

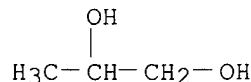
CM 2

CRN 107-36-8
CMF C2 H6 O4 SHO—CH₂—CH₂—SO₃H

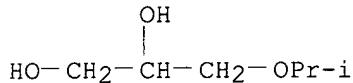
CM 3

CRN 107-21-1
CMF C2 H6 O2HO—CH₂—CH₂—OH

CM 4

CRN 57-55-6
CMF C3 H8 O2RN 155328-03-3 HCPLUS
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(1-methylethoxy)propyl 2-sulfoethyl
ether (9CI) (CA INDEX NAME)

CM 1

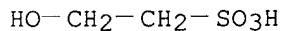
CRN 17226-43-6
CMF C6 H14 O3

CM 2

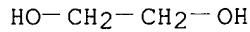
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 107-36-8
CMF C2 H6 O4 S

CM 4

CRN 107-21-1
CMF C2 H6 O2

L63 ANSWER 21 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1992:216627 HCPLUS
 DOCUMENT NUMBER: 116:216627
 TITLE: Dihydroxypropyl sulfoethyl cellulose preparation and use
 INVENTOR(S): Breckwoldt, Joern; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Germany
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 470444	A2	19920212	EP 1991-112474	19910725
EP 470444	A3	19920708		
EP 470444	B1	19950628		

R: BE, DE, FR, GB, IT, NL, SE				
DE 4024968	A1	19920709	DE 1990-4024968	19900807
US 5182380	A	19930126	US 1991-737636	19910730
JP 04279601	A2	19921005	JP 1991-214139	19910801
JP 2799257	B2	19980917		
FI 9103723	A	19920208	FI 1991-3723	19910805

PRIORITY APPLN. INFO.: DE 1990-4024968 19900807

AB The title **ether** (I), which is water-sol. at low degrees of substitution and can be reversibly gelled, is prep'd. by sulfoethylation and then dihydroxypropylation of alkali cellulose. Stirring 127 g milled cellulose, 75.5 g NaOH, and 3 L 92.5% iso-PrOH at room temp. for 1 h, adding 0.24 mol 30% aq. CH₂:CHSO₃Na, stirring at 70.degree. for 90 min, stirring the sulfoethyl cellulose with 31 g NaOH in 3 L 98% aq. acetone at room temp. for 1 h, and adding 87.3 g glycidol over 15 min at 55.degree. gave I with degree of sulfoethylation and dihydroxypropylation 0.18 and 0.8, resp. (yield 60 and 57%, resp.).

IT 141092-50-4P

RL: **PREP (Preparation)**

(manuf. of water-sol., for reversible gelation)

RN 141092-50-4 HCPLUS

CN Cellulose, 2,3-dihydroxypropyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

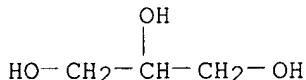
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 56-81-5

CMF C3 H8 O3



L63 ANSWER 22 OF 52 HCPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:538551 HCPLUS

DOCUMENT NUMBER: 113:138551

TITLE: Preparation of modified cellulose for biocompatible dialysis membranes

INVENTOR(S): Diamantoglou, Michael

PATENT ASSIGNEE(S): AKZO N. V., Neth.

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 330106	A1	19890830	EP 1989-102853	19890218
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3901947	A1	19890907	DE 1989-3901947	19890124
JP 02006501	A2	19900110	JP 1989-42005	19890223
JP 2746636	B2	19980506		
US 4981959	A	19910101	US 1989-315574	19890227
US 5093486	A	19920303	US 1990-599832	19901019
PRIORITY APPLN. INFO.:			DE 1988-3805992	19880225
			US 1989-315574	19890227

AB Biocompatible dialysis membranes are made of the modified cellulose cell(OCOR)_m(OX)_x(OH)_{5-(m+x)} (cell = cellulose; R = Me, Et, Pr; X = COR₂, CSR₁, CO₂R₁, CONHR₁, CONR₁R₂, CH₂CH₂R₁, etc.; R₁ = alkyl, alkenyl, alkynyl, etc.; R₂ = H, R₁; m = 0.75-2.85; x = 0.005-2.10). A mixt. of 50.88g cellulose 2.2-acetate, 5 g KOAc, 26.6 g dodecenylysuccinic acid anhydride and 500 mL dimethylacetamide was heated at 70.degree. for 20 h, to give cellulose 2.2-acetate 0.08-dodecenylysuccinate, which was shaped into a membrane. The membranes cause little blood clotting, leukopenia and complement activation. They adsorb the .beta.2-microglobulins known to induce the Karpal tunnel effect.

IT 51668-24-7P 129495-27-8P

RL: PREP (Preparation)
 (prepn. of, for biocompatible dialysis membranes)

RN 51668-24-7 HCPLUS

CN Cellulose, acetate, 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
 CMF C3 H8 O4 S

HO—(CH₂)₃—SO₃H

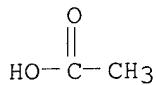
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

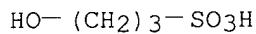
CRN 64-19-7
 CMF C2 H4 O2



RN 129495-27-8 HCAPLUS
 CN Cellulose, acetate octadecenoate, 3-sulfopropyl ether (9CI) (CA INDEX
 NAME)

CM 1

CRN 15909-83-8
 CMF C3 H8 O4 S



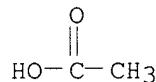
CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 64-19-7
 CMF C2 H4 O2

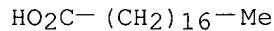


CM 4

CRN 26764-26-1
 CMF C18 H34 O2
 CCI IDS

CM 5

CRN 57-11-4
 CMF C18 H36 O2



L63 ANSWER 23 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1989:635432 HCAPLUS
 DOCUMENT NUMBER: 111:235432
 TITLE: Preparation of sulfoethyl cellulose with good solution

INVENTOR(S): properties
 Herzog, Dieter; Balser, Klaus; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319867	A2	19890614	EP 1988-120200	19881203
EP 319867	A3	19890823		
EP 319867	B1	19930127		
EP 319867	B2	19960313		
R: DE, FR, IT, NL, SE				
DE 3742104	A1	19890622	DE 1987-3742104	19871211
FI 8805691	A	19890612	FI 1988-5691	19881208
FI 95137	B	19950915		
FI 95137	C	19951227		
US 4990609	A	19910205	US 1988-282078	19881209
DE 1987-3742104 19871211				

PRIORITY APPLN. INFO.: AB Sulfoethyl cellulose (I) with degree of substitution (DS) 0.4-1.4, viscosity of a 2% aq. soln. at 20.degree. (.eta.) 15-60,000 mPa-s, and light transmission (LT) (2% aq. soln., 550 nm) >95% is prep'd. by addn. of **etherifying** agents before addn. of alkali. Stirring cotton linters 113.4, iso-PROH 2190, and 48.8% aq. CH2:CHSO3Na 261 parts for 15 min, adding 76.3 parts H2O and 67.2 parts NaOH, and stirring at 25-30.degree. for 80 min and 75.degree. for 3 h gave I with chem. yield 49.3%, .eta. 28.2 Pa-s, DS 0.69, and LT 96.8%; vs. 43.4, 67.6, 0.61, and 92.5, resp., when the sulfonate was added after the alkali.

IT 39277-57-1P, 2-Sulfoethylcellulose sodium salt
 123938-77-2P 123938-78-3P

RL: **PREP (Preparation)**
 (manuf. of, with low soln. viscosity and good transparency)

RN 39277-57-1 HCPLUS
 CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH2—CH2—SO3H

RN 123938-77-2 HCPLUS
 CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

WHITE 09/955,864

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

RN 123938-78-3 HCAPLUS
CN Cellulose, methyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 67-56-1
CMF C H4 O

H₃C—OH

L63 ANSWER 24 OF 52 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:619280 HCAPLUS

DOCUMENT NUMBER: 111:219280
 TITLE: Device for the controlled release of drugs with
 Donnan-like modulation by charged insoluble resins
 INVENTOR(S): Zentner, Gaylen M.
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA
 SOURCE: Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 302693	A2	19890208	EP 1988-307101	19880801
EP 302693	A3	19890322		
EP 302693	B1	19920318		
R: CH, DE, FR, GB, IT, LI, NL				
US 4795644	A	19890103	US 1987-81090	19870803
US 4814183	A	19890321	US 1987-91571	19870831
PRIORITY APPLN. INFO.:			US 1987-81090	19870803
			US 1987-91571	19870831

AB The title device comprises a core compn. and an imperforate water-insol. wall or a perforable water-insol. wall. The core is made of a water-insol. nondiffusible resin and a **water-sol. ionizable** drug, carrying the same charge as the resin. The imperforate wall is made of a semipermeable material, which is impermeable to the core compn. and permeable to an external fluid. This wall has a means for release of the drug. The perforable wall is made of a polymer permeable to water and impermeable to solute, which contains 0.1-75% water-leachable pore-forming additive. The drug is released by a Donnan-type osmotic transport actuated by water from the environment. The release, which occurs through the pores or release means, has reduced pH dependency. Granules made of diltiazem-HCl, pentaerythritol, Dowex-1, citric acid, and adipic acid (2:10:4:1:1), with PVP as a binder, were tabletted. The tablets were coated by spraying a soln. of 36 g cellulose acetate (32% acetyl content) and 36 g cellulose acetate (39% acetyl content) in CH₂Cl₂-MeOH. The soln. also contained 36 g sorbitol, as a pore former, and 20 g polyethylene glycol-400 flux enhancer, dissolved in **aq.** MeOH.

IT 9032-46-6, Sulfoethyl cellulose 37325-18-1, Sulfopropyl cellulose

RL: BIOL (Biological study)
 (sustained-release drug formulations contg.)

RN 9032-46-6 HCPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

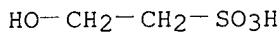
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

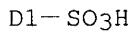
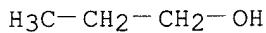
CRN 107-36-8
 CMF C2 H6 O4 S



RN 37325-18-1 HCAPLUS
 CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
 CMF C3 H8 O4 S
 CCI IDS



CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 25 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1989:615445 HCAPLUS
 DOCUMENT NUMBER: 111:215445
 TITLE: Preparation of acrylic-cellulose
 ether copolymers with improved water retention
 and thickening capacity
 INVENTOR(S): Buyanov, A. L.; Revel'skaya, L. G.; Nud'ga, L. A.;
 Petrova, V. A.; Plisko, E. A.; Petropavlovskii, G. A.;
 Lebedeva, M. F.; Zakharov, S. K.
 PATENT ASSIGNEE(S): Institute of High-Molecular-Weight Compounds, Academy
 of Sciences, U.S.S.R., USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1989, (19), 102.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1481236	A1	19890523	SU 1987-4290048	19870727

AB The title copolymers having good moisture retention and thickening properties, are prep'd. by radical copolymn. of acrylic acid (I) or I-acrylamide mixt. and a polyfunctional crosslinker in an aq. medium. The moisture retention of the copolymers is enhanced while their thickening capacity is maintained at a high level by copolymer. 25-35 wt.% comonomers in the presence of a reaction mixt. obtained by electrolytic oxidn. of $\text{Co}(\text{AcO})_2$ in AcOH and 0.05-0.12 wt.% polyfunctional crosslinker selected from allylcarboxymethyl cellulose, allyloxyethyl cellulose, allyloxypropyl cellulose, allylmethyl cellulose, or allylsulfoethyl cellulose.

IT 68190-46-5DP, Allylsulfoethyl cellulose, polymers with acrylic acid and/or acrylamine
 RL: **PREP (Preparation)**
 (prepn. of, as thickeners)
 RN 68190-46-5 HCPLUS
 CN Cellulose, 2-propenyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-18-6
 CMF C3 H6 O

H₂C=CH—CH₂—OH

L63 ANSWER 26 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1989:597086 HCPLUS
 DOCUMENT NUMBER: 111:197086
 TITLE: Carboxymethyl sulfoethyl cellulose and process for its preparation
 INVENTOR(S): Herzog, Dieter; Balser, Klaus; Szablikowski, Klaus
 PATENT ASSIGNEE(S): Wolff Walsrode A.-G., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319865	A2	19890614	EP 1988-120198	19881203
EP 319865	A3	19900725		
EP 319865	B1	19940622		
R: DE, FR, IT, NL, SE				
DE 3742106	A1	19890622	DE 1987-3742106	19871211
FI 8805692	A	19890612	FI 1988-5692	19881208
FI 94764	B	19950714		
FI 94764	C	19951025		
US 5001232	A	19910319	US 1988-282077	19881209

PRIORITY APPLN. INFO.: DE 1987-3742106 19871211
 AB The title product (I), with good solv., degree of substitution by sulfoethyl and carboxymethyl groups (Ds and Dc) 0.1-1 and 0.3-1.2, resp., viscosity of a 2% soln. (.eta.) 5-60,000 MPa at 20.degree., and transmission of a 2% soln. at 550 nm (LT) >95%, is prep'd. by mixing cellulose with etherifying agents before alkali addn. Stirring bleached sulfite pulp (particle size 0.02-0.5 mm) 127.4, 51.3% aq. CH₂:CHSO₃Na 159.34, and iso-PrOH 2178 parts for 15 min, adding 75.46 parts NaOH in 147.4 parts H₂O, stirring 80 min at 25-30.degree. and 2 h at 70.degree., adding 92.34 parts 80% aq. ClCH₂CO₂H, and stirring 90 min at 70.degree. gave I with chem. yield 66.25%, .eta. 59 mPa-s, Ds 0.53, Dc 0.74, and LT 97.8%.

IT 117989-25-0P

RL: PREP (Preparation)

(manuf. of, with low soln. viscosity and good transparency)

RN 117989-25-0 HCPLUS

CN Cellulose, carboxymethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

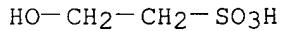
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

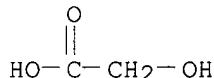
CMF C2 H6 O4 S



CM 3

CRN 79-14-1

CMF C2 H4 O3



L63 ANSWER 27 OF 52 HCPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:540506 HCPLUS

DOCUMENT NUMBER: 111:140506

TITLE: Controlled-release pharmaceuticals containing water-soluble ionizable active agents and ionic resins and pore-forming materials for release via the Donnan effect

INVENTOR(S): Zentner, Gaylen M.

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 17 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4795644	A	19890103	US 1987-81090	19870803
CA 1331563	A1	19940823	CA 1988-573425	19880729
EP 302693	A2	19890208	EP 1988-307101	19880801
EP 302693	A3	19890322		
EP 302693	B1	19920318		
R: CH, DE, FR, GB, IT, LI, NL				
JP 02056417	A2	19900226	JP 1988-194323	19880803
JP 07103013	B4	19951108		
US 4976967	A	19901211	US 1988-274172	19881121
US 1987-81090 19870803				
US 1987-91571 19870831				

PRIORITY APPLN. INFO.:

AB A controlled-release delivery device comprises a core contg. a water-insol., nondiffusible charged resin entity; a diffusible, **water-sol. ionizable** active agent carrying the same charge as the resin; surrounding the core, a water-insol. wall consisting of a polymer that is permeable to water, but substantially impermeable to solute, and that contains 0.1-75% by wt., based on the total wt. of the wall; and .gt;req.1 leachable pore-forming additives dispersed throughout the wall. A 2:10:4:1:1 mixt. contg. diltiazem-HCl, pentaerythritol, Dowex-1, citric acid, and adipic acid was wet-granulated together with 10% poly(vinylpyrrolidone) as binder, compressed into cores (active agent load 60 mg), and coated with a compn. contg. 36 g cellulose acetate (32% acetyl content), 36 g of cellulose acetate (39% acetyl content), H₂O-MeOH-CH₂Cl₂ in a 1:10:5 ratio, 36 g sorbitol as pore-forming agent, and 20 g polyethylene glycol-400; the coating weighed 100 mg. The release of diltiazem-HCl (pKa = 7.7) into a isotonic HCl buffer (pH 1.2) or isotonic phosphate buffer (pH 8.0) was const. following a brief lag period and independent of pH.

IT 9032-46-6D, Sulfoethyl cellulose, **ionic** derivs.37325-18-1D, Sulfopropyl cellulose, **ionic** derivs.

RL: BIOL (Biological study)

(controlled-release pharmaceuticals contg. **water-sol. ionizable** active agents and pore-forming materials and)

RN 9032-46-6 HCPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

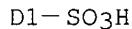
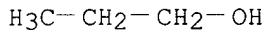
CMF C2 H6 O4 S

HO-CH₂-CH₂-SO₃H

RN 37325-18-1 HCAPLUS
 CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
 CMF C3 H8 O4 S
 CCI IDS



CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 28 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1989:536289 HCAPLUS
 DOCUMENT NUMBER: 111:136289
 TITLE: **Cellulose ester ethers** for
 preparation of fibers and membranes
 INVENTOR(S): Diamantoglou, Michael
 PATENT ASSIGNEE(S): AKZO G.m.b.H., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3723897	A1	19890126	DE 1987-3723897	19870718
EP 300250	A2	19890125	EP 1988-110547	19880701
EP 300250	A3	19890906		
EP 300250	B1	19960605		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 138811	E	19960615	AT 1988-110547	19880701
ES 2087852	T3	19960801	ES 1988-110547	19880701
JP 01036601	A2	19890207	JP 1988-172826	19880713
US 5008385	A	19910416	US 1988-219309	19880715

PRIORITY APPLN. INFO.: DE 1987-3723897 19870718

AB **Cellulose** bearing the **ether** groups OZX (Z =
 hydrocarbylene; X = H, amino, quaternary ammonio, CN, CO₂H, SO₃H,
 phosphono, amido, silyl) and the ester groups OC₂Y (Y = hydrocarbyl,
 C₆H₄CO₂H, carboxy alkyl, carboxylvinyl, amino), with degree of
 substitution (D.S.) 0-2.5 and 0.2-2.95, resp., is useful in membranes and
 fibers or filaments. Thus, stirring 95.85 g DEAE-cellulose (D.S. 0.25,
 d.p. 1170) in 1006.4 g AcNMe₂ at 145.degree. for 30 min, cooling to

100.degree., adding 95.8 g LiCl, cooling quickly to room temp., stirring overnight, adding 6 g KOAc and 59.2 g phthalic anhydride, and stirring 6 h at 65.degree. and 15 h at room temp. gave DEAE-cellulose phthalate (D.S. 0.24 and 0.28, resp.). Hollow-fiber membranes spun from this deriv. (wall thickness 14 .mu.m, inner diam. 200 .mu.m) had ultrafiltration rate 4.0 mL/h-m²-mm Hg at 37.degree., Vitamin B12 permeability 0.0048 cm/min at 37.degree., and .beta.-microglobulin adsorption 50%.

IT 122878-54-0P, 2-Sulfoethyl cellulose acetate

RL: PREP (Preparation)
(manuf. of, for membranes and fibers)

RN 122878-54-0 HCPLUS

CN Cellulose, acetate, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

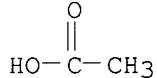
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 64-19-7
CMF C2 H4 O2



L63 ANSWER 29 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1989:9963 HCPLUS
 DOCUMENT NUMBER: 110:9963
 TITLE: Salt-resistant cellulose ether
 sodium salts and their manufacture
 INVENTOR(S): Takahashi, Fuminobu; Suzuki, Minoru
 PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63182301	A2	19880727	JP 1987-13041	19870122

AB Title cellulose derivs. useful in drilling mud, formulation additives, etc., are prep'd. having carboxymethyl group substitution degree (SDcm) 0.2-1.0, sulfoethyl group substitution degree (SDse) 0.4-1.0, and ultra-salt-resistant coeff. K .ltoreq.0.15 [K = (.eta.-.eta.0)/.eta.0; .eta.0 = viscosity (mPa-S) of a 2% the derivs. soln. in pure water; .eta.1 = viscosity of a 2% the derivs. in 4% aq. CaCl₂ soln.]. Thus, mixing 70 g cellulose powder (pulp) with 300 g Me₂CHOH and 86.4 g 40% aq. NaOH soln. 40 min at 35.degree., adding 46.8 g Na 2-chloroethanesulfonate, heating 60 min at 80.degree., cooling, and heating with 25.7 g chloroacetic acid 60 min at 80.degree. gave cellulose deriv. with SDcm 0.34, SDse 0.55, transparency 57.5 cm, .eta.0 660 mPa-S, and .eta.1 610 mPa-S.

IT 117989-25-0P

RL: PREP (Preparation)

(salt-resistant, manuf. of)

RN 117989-25-0 HCPLUS

CN Cellulose, carboxymethyl 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

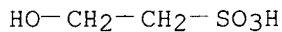
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

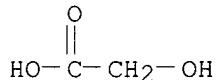
CMF C2 H6 O4 S



CM 3

CRN 79-14-1

CMF C2 H4 O3



L63 ANSWER 30 OF 52 HCPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:96256 HCPLUS

DOCUMENT NUMBER: 108:96256

TITLE: Biostable compositions and the aqueous
solutions thereof as thickeners for aqueous
-based systems

INVENTOR(S): Nickol, Robert G.

PATENT ASSIGNEE(S): Hercules Inc., USA

SOURCE: U.S., 6 pp. Cont. of U.S. Ser. No. 669,138, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4707189	A	19871117	US 1986-873108	19860610
			US 1984-669138	19841107

PRIORITY APPLN. INFO.:

AB Nonpptg. aq. thickening solns. for water-based systems, e.g. paints, shampoos, etc., (no data) are prep'd. by dissolving in H₂O a dry compn. of .gt;req.1 anionic water-sol. polymer contg. carboxylate or sulfonate groups and .gt;req.1 cationic quaternary ammonium salt surfactant in ratio (expressed as mol surfactant/mol equiv. carboxylate or sulfonate groups) 0.025-2.0. Adding 1.16 g powd. blend of 3.18 g carboxymethylhydroxyethyl cellulose (I, 5.7% moisture, av. OH/anhydroglucose unit 0.4) and 0.3 g cetyltrimethylammonium bromide (II) to 198.84 g distd. H₂O gave aq. soln. contg. 0.5% I and 0.05% II.

IT 113189-11-0

RL: USES (Uses)
(aq. mixts. of quaternary ammonium salt and, nonpptg., as thickening agents for water-based systems)

RN 113189-11-0 HCPLUS

CN Cellulose, 2-hydroxyethyl 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH₂—CH₂—OH

L63 ANSWER 31 OF 52 HCPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:39943 HCPLUS
DOCUMENT NUMBER: 108:39943
TITLE: Crosslinked composite membranes
INVENTOR(S): Honda, Zenjiro; Komada, Hajime; Karakane, Hiroki
PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62171705	A2	19870728	JP 1986-11088	19860123
JP 04007254	B4	19920210		
US 4824573	A	19890425	US 1987-6151	19870123
US 4895685	A	19900123	US 1989-308785	19890210
PRIORITY APPLN. INFO.:			JP 1986-11088	19860123
			JP 1986-11089	19860123
			US 1987-6151	19870123

AB Title membranes contain skin layers which are the reaction products of sulfonate- and/or SO₃H group-contg. water-sol. polysaccharides and multifunctional melamine compds. Thus, a DUS 40 (polyether sulfone) membrane was coated with hexamethoxymethylmelamine-crosslinked sulfoethylcellulose and used to treat aq. EtOH. The EtOH concn. was 92.1% in the feed and 0.5% in the liq. passed the membrane.

IT 9032-46-6P, Sulfoethylcellulose

RL: PREP (Preparation)

(manuf. and crosslinking with melamine derivs.)

RN 9032-46-6 HCPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S

HO—CH₂—CH₂—SO₃H

L63 ANSWER 32 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1988:39878 HCPLUS
 DOCUMENT NUMBER: 108:39878
 TITLE: Studies on the ion selective charged membranes (I).
 Permeability of alkaline metal and tetraalkylammonium
 chlorides through charged sulfoethyl cellulosic
 membranes
 AUTHOR(S): Pak, Soo Min
 CORPORATE SOURCE: Coll. Eng., Pusan Natl. Univ., Pusan, 607, S. Korea
 SOURCE: Journal of the Korean Fiber Society (1987), 24(4),
 384-90
 CODEN: HSKCDQ; ISSN: 0253-6420
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The permeation of alkali metal and tetraalkylammonium chloride through
 charged sulfoethyl cellulosic membranes was investigated at 25.degree..

The permeability coeffs. increased in a sequence: KCl > Me4NCl > Et4NCl > Bu4NCl. This sequence was explained by considering the partition and the hydration of the ions in these hydrophilic membranes. The dependence of the permeability on the salts concn. was interpreted by Teorell-Meyer-Sievers theory based on the Nernst-Planck equation. Ionic mobility ratio in these membranes showed the same dependence on the Stokes radius of the cation as that in the bulk aq. soln. The effectiveness of the fixed charge d. was found on the ionic species and was explained by considering the counterion binding by the neg. charged groups in the membrane.

IT 9032-46-6, Sulfoethyl cellulose

RL: USES (Uses)

(membranes, permeation of alkali metal and tetraalkylammonium chlorides through, partition and hydration in relation to)

RN 9032-46-6 HCPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

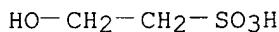
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S



L63 ANSWER 33 OF 52 HCPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1987:220706 HCPLUS

DOCUMENT NUMBER: 106:220706

TITLE: Sorption of sodium benzenesulfonate by charged cellulose membranes

AUTHOR(S): Kimura, Yuji; Iijima, Toshiro

CORPORATE SOURCE: Dep. Polym. Sci., Tokyo Inst. Technol., Tokyo, 152, Japan

SOURCE: Sen'i Gakkaishi (1987), 43(4), 173-8

CODEN: SENGA5; ISSN: 0037-9875

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Equil. sorption of Na benzenesulfonate (I) by charged cellulose membranes carboxyethyl cellulose (CEC), sulfoethyl cellulose (SEC), and phosphorylated cellulose (PC) was detd. by measuring both of the cation and anion concns. at 25.degree.. The results were analyzed by the simple Donnan model in which a homogeneous charge distribution is assumed. In the range of aq. salt concn. C > C.chi. (effective fixed charge d.), the Donnan approach reproduced the exptl. results quite well. In the range of C < C.chi., however the deviation was clearly obsd., esp. for SEC and PC membranes which have high C.chi.. The sorption data could be explained well over all range of salt concns. (1 .times. 10⁻³ .apprx. 4 .times. 10⁻¹ mol/L) by Petropoulos's theory, which is based on the nonhomogeneous charge distribution. The Z-factors as the measure of the non-homogeneous charge distribution were estd. as 0.72 | 0.81 for NaCl and

0.82 .apprx. 0.85 for I. The partition coeffs. of I were lower than NaCl. The effects of ionic size on these values were suggested.

IT 9032-46-6, Sulfoethyl cellulose

RL: PRP (Properties)

(membrane, sorption of sodium benzenesulfonate on charged)

RN 9032-46-6 HCAPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

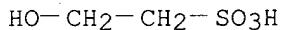
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S



L63 ANSWER 34 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1987:68927 HCAPLUS

DOCUMENT NUMBER: 106:68927

TITLE: Membrane potential and permeability of charged cellulosic membrane in aqueous alkali metal salts systems

AUTHOR(S): Kimura, Yuji; Iijima, Toshiro

CORPORATE SOURCE: Dep. Polym. Sci., Tokyo Inst. Technol., Okayama, 152, Japan

SOURCE: Sen'i Gakkaishi (1986), 42(12), T692-T698

CODEN: SENGA5; ISSN: 0037-9875

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The membrane potential and permeability of charged cellulosic membranes in alkali metal salts soln. were detd. at 25. degree.. The membranes used were carboxyethyl cellulose (I) [9004-42-6], sulfoethyl cellulose (II) [9032-46-6], and cellulose phosphate (III) [9015-14-9] with the same degree of substitution (0.02). The membrane potential and permeability as a function of the salt concn. were analyzed by means of the TMS (Teorell-Meyer-Sievers) theory. In a series of alkali metal chlorides the diffusion coeffs. of the cations in the membranes decreased with increasing Stokes radius of the cations. The diffusion coeffs. of alkali metal chlorides increased with increasing Stokes radius of the cations. In the case of Na salts carrying different counter anions i.e., NaCl, NaNO₃, and PhSO₃Na [515-42-4], the diffusion coeffs. of the anions decreased with increasing ionic sizes. The diffusion coeffs. of the Na ions in these salts were approx. of the same value. The effective fixed charge d. and the diffusion coeff. of ions in the membranes increased in the sequence I < II < III. These results were explained by considering the counterion binding by the neg. charged groups in the membranes.

IT 9032-46-6, Sulfoethyl cellulose

RL: PRP (Properties)

(membrane potential and permeability of, to alkali metal salt solns.)

RN 9032-46-6 HCPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

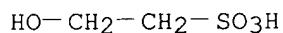
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



L63 ANSWER 35 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1985:80577 HCPLUS
 DOCUMENT NUMBER: 102:80577
 TITLE: Sulfoethylation of pulp and the properties of prepared
ethers
 AUTHOR(S): Pastyr, Jan; Ebringerova, Anna; Zakutna, Libusa;
 Cepero, I.
 CORPORATE SOURCE: Chem. Ustav, SAV, Bratislava, 842 38, Czech.
 SOURCE: Chemicke Vlakna (1984), 34(3), 152-66
 CODEN: CMVLA8; ISSN: 0528-9432
 DOCUMENT TYPE: Journal
 LANGUAGE: Slovak
 AB SEM and TEM study showed that activation of sulfate bagasse pulp with NaOH
 solns. resulted in significant swelling of the fibers and loosening of
 their cell wall structure, whereas activation of the pulp with H₂SO₄
 solns. did not cause significant swelling but the fibers were deformed and
 their fibrillar structure was partially destroyed. **Etherification**
 of the acid-activated pulp with β -chloroethyl sulfonate gave
 water-sol. esters in higher yield than in the case of
etherification of alkali-activated samples. These results are in
 agreement with the morphol. observations and confirm that the reactivity
 of the acid-activated bagasse pulp is higher than that of alkali-activated
 sample. The **ethers** obtained from both acid- and
 alkali-activated pulps had a very similar fibrillar structure.
 IT 9032-46-6P
 RL: **PREP (Preparation)**
 (prepn. of, from bagasse pulp, preliminary alkali or acid treatment of
 pulp in relation to)
 RN 9032-46-6 HCPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 SHO—CH₂—CH₂—SO₃H

L63 ANSWER 36 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1985:20095 HCPLUS
 DOCUMENT NUMBER: 102:20095
 TITLE: Enzymic hydrolysis of **water-soluble**
 cellulose derivatives with respect to determination of
 endo-.beta.-1,4-glucanase activity.
 AUTHOR(S): Polter, E.; Kasulke, U.; Philipp, B.
 CORPORATE SOURCE: Inst. Tech. Chem., DAW, Leipzig, DDR-7050, Ger. Dem.
 Rep.
 SOURCE: Acta Biotechnologica (1984), 4(4), 347-53
 CODEN: ACBTDD; ISSN: 0138-4988
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB Uncharged (hydroxyethyl-cellulose) cellulose derivs. and cellulose derivs.
 with strongly acidic groups (cellulose sulfate and sulfoethyl-cellulose)
 provided max. activity with the cellulase complex of Gliocladium HUGk,
 depending on the pH, in expts. in which reducing sugar release was
 measured. Carboxymethyl- and carboxyethyl-celluloses as substrates caused
 a degree-of-substitution-dependent shift of the optimum activity to a
 lower pH, and the max. was always found at an effective charge d. of 0.1
 mol CO₂-/**anhydroglucose** unit. The height of the max. in the
 curve of reducing sugar release vs. pH and the extent of the proportional
 area between reducing sugar release and enzyme concn. (linear area) were
 dependent on the no. and length of unsubstituted **anhydroglucose**
 sequences and also the degree of substitution and substituent distribution
 in the substrate. The values of carboxymethylcellulase activity detd.
 with Gliocladium cellulase prepns. differed considerably when different
 cellulose derivs. were used as substrates, and the values for the anionic
 derivs. had a definite correlation with the reciprocal value of the
 effective charge d. The proper choice of substrate for detn. of
 carboxymethylcellulase activity is discussed, based on these results.
 IT 9032-46-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hydrolysis of, by cellulase prepn. from Gliocladium, substrates for
 detn. of carboxymethylcellulase in relation to)
 RN 9032-46-6 HCPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

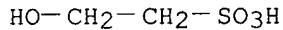
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8

CMF C2 H6 O4 S

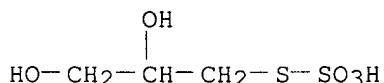


L63 ANSWER 37 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1984:612956 HCPLUS
 DOCUMENT NUMBER: 101:212956
 TITLE: Mercaptohydroxypropyl cellulose
 INVENTOR(S): Gemeiner, Peter
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 3 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Slovak
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AB	CS 217458	B	19830128	CS 1981-3476	19810512
AB	2-Hydroxy-3-mercaptopropyl cellulose (I) [37291-32-0] is prep'd. by etherification of cellulose (II) [9004-34-6] (5-15% moisture) with epichlorohydrin (III) [106-89-8] at 80-95.degree. for 2-4 h in the presence of HClO4 or HCl, followed by treatment with Na2S2O3 and redn. with thiols in buffer solns. Thus, to 9 g dry II 1.6 mL water and 17.6 mL III were added, the mixt. was stirred 30 min and treated slowly with 0.2 mL 6% HClO4. After 3 h at 95.degree. 3-chloro-2-hydroxypropyl cellulose [55069-36-8] (8.6 g, 4.6% Cl) was obtained, which was suspended (5 g) in 15 mL 4.4 M Na2S2O3, kept 15 h at 100.degree., and washed with water and Me2CO to give 4.95 g 2-hydroxy-3-thiosulfatopropyl cellulose (IV) [68821-82-9] contg. 4.05% S. IV was then resuspended in 27 mL 50 mM Na2B4O7 soln. contg. 1.15% tributylphosphine and 3.7 mL 2-mercaptopropanoic acid [60-24-2], pH was adjusted to 9, and the reaction mixt. was stirred for 30 min. The obtained I (4.3 g) was washed with 1 mM Chelaton 3, water, and Me2CO and contained 2.3% S and 0.33 mmol SH-groups/g. I is useful for isolation and purifn. of enzymes, proteins, peptides, etc.				
IT	68821-82-9P				
IT	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and redn. of, in presence of mercaptopropanoic acid)				
RN	68821-82-9 HCPLUS				
CN	Cellulose, 2-hydroxy-3-(sulfothio)propyl ether (9CI) (CA INDEX NAME)				

CM 1

CRN 170481-02-4
 CMF C3 H8 O5 S2



CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 38 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1983:472430 HCPLUS
 DOCUMENT NUMBER: 99:72430
 TITLE: Sulfoethyl derivatives of polysaccharides soluble in
 water
 INVENTOR(S): Ebringerova, Anna; Pastyr, Jan
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 3 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Slovak
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 200676	B	19800915	CS 1978-1172	19780224

AB The title compds. are obtained by **etherification** of
 polysaccharides 1-3 h at 40-65.degree. with Na vinylsulfonate (I)
 [3039-83-6] in alk. soln. in dioxane, Me₂CO, C₆H₆, iso-PrOH, or PrOH at
 polysaccharide:alkali hydroxide:I molar ratio 1:1-2.5:0.5-1. Thus, 1 kg
 regenerated cellulose [9004-34-6] (av. mol. wt. 330-350) was mixed with
 0.8 L emulsion of 40% NaOH in 15 L iso-PrOH for 60 min, and another 1 h at
 40.degree. with 0.8 kg I to give after washing and drying 1.4 kg
 water-sol. sulfoethyl cellulose ester Na salt [39277-57-1] with
 substitution degree 0.3-0.7.

IT 39277-57-1P

RL: **PREP (Preparation)**
 (manuf. of, by **etherification** of cellulose with
 sodium vinylsulfonate)

RN 39277-57-1 HCPLUS

CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C₂ H₆ O₄ S

HO—CH₂—CH₂—SO₃H

L63 ANSWER 39 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1982:618274 HCPLUS
 DOCUMENT NUMBER: 97:218274

TITLE: Chemical derivatization of cellulosic residues. 1.
 AUTHOR(S): Sulfoalkylation of hemicelluloses
 Focher, B.; Marzetti, A.; Cattaneo, M.; Sarto, V.;
 Torri, G.
 CORPORATE SOURCE: Staz. Sper. Cell. Carta Fibre Tess. Veg. Artif.,
 Milan, Italy
 SOURCE: Carbohydrate Polymers (1982), 2(4), 290-4
 CODEN: CAPOD8; ISSN: 0144-8617
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The activation of hemicellulose (I) [9034-32-6], recovered from I soln.
 contg. 24% NaOH by pptn. with EtOH and Me2SO, with dimsyl Na (II)
 [15590-23-5] followed by reaction with propane sultone (III) [1120-71-4]
 in Me2SO resulted in the prepn. of 3-sulfopropyl cellulose (IV)
 [39322-23-1]. The yield of IV depended on the ratio of II-I and
 activation time and was in the highest value at II-I ratio of 10-25 mL/g
 and for activation time of 15-30 min., and that obtained from Me2SO pptn.
 was higher than that obtained from EtOH pptn.
 IT 39322-23-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 39322-23-1 HCPLUS
 CN Cellulose, 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8
 CMF C3 H8 O4 S

HO—(CH₂)₃—SO₃H

CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 40 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1982:201506 HCPLUS
 DOCUMENT NUMBER: 96:201506
 TITLE: Manufacture of sodium 2-sulfoethyl cellulose
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57018701	A2	19820130	JP 1980-93109	19800708
JP 63056243	B4	19881107		

AB An alkali cellulose dispersion preheated to
 etherification temp. was treated dropwise or stepwise with Na

2-chloroethanesulfonate (I) [15484-44-3] to give Na 2-sulfoethyl cellulose (II) [39277-57-1] with excellent transparency. For example, a linter pulp dispersion in iso-PrOH was treated with 30.8% aq. NaOH to give an alkali cellulose dispersion which, understirring at 82-84.degree., was treated with half the I to be used for 30 min and then the remaining I for 1 h to give II with degree of **etherification** 0.33, transparency (2% aq. soln., 10 mm cell) 80%, viscosity (2% aq. soln.) 50,000 cP, and I conversion 57.9%, compared with 0.28, 23, 50,000, and 49.1, resp., for a process using a single addn. of I.

IT 39277-57-1P

RL: **PREP (Preparation)**
(manuf. of transparent)

RN 39277-57-1 HCAPLUS

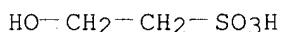
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
CMF C2 H6 O4 S

L63 ANSWER 41 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1982:69795 HCAPLUS

DOCUMENT NUMBER: 96:69795

TITLE: Preparation of bead-shaped cellulosic ion exchangers

AUTHOR(S): Matsumoto, Kazuaki; Hirayama, Chuichi; Motozato, Yoshiaki

CORPORATE SOURCE: Fac. Eng., Kumamoto Univ., Kumamoto, 860, Japan

SOURCE: Nippon Kagaku Kaishi (1981), (12), 1890-8

CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Various types of bead-shaped cellulosic ion exchangers were prep'd. from bead-shaped cellulose (I) or crosslinked bead-shaped I or crosslinked porous bead-shaped I. DEAE-cellulose (II) [9013-34-7] and ECTEOLA-cellulose [9015-13-8] were prep'd. by reaction of the basic materials with $\text{C}_1\text{CH}_2\text{CH}_2\text{N}(\text{Et}_2)_2\text{HCl}$ and a mixt. of epichlorohydrin and triethanolamine, resp. Their anion exchange capacities and degrees of swelling were .apprx.2.7, .apprx.0.5 mequiv/g and .apprx.29, .apprx.6.2 mL/g, resp. CM-cellulose [9004-32-4], sulfomethyl cellulose [9015-17-2] And cellulose phosphate [9015-14-9] were prep'd. by reaction of the basic materials with $\text{C}_1\text{CH}_2\text{CO}_2\text{H}$, $\text{C}_1\text{CH}_2\text{SO}_3\text{Na}$, and POCl_3 , resp. Their cation exchange capacities and degrees of swelling were .apprx.2.2, .apprx.0.9, .apprx.1.8 mequiv/g and .apprx.47, .apprx.19, .apprx.10 mL/g, resp. Excluded crit. mol. wts. (M_{lim}) of the ion exchangers from crosslinked porous I beads were larger than those from crosslinked I beads. For example, M_{lim} of II from the former was 4 times larger than II prep'd. from the latter.

IT 9015-17-2P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (cation exchangers, bead-shape, prepn. and exchange and swelling
 properties of)

RN 9015-17-2 HCAPLUS

CN Cellulose, sulfomethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 75-92-3

CMF C H4 O4 S

HO—CH₂—SO₃H

L63 ANSWER 42 OF 52 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1981:571347 HCAPLUS

DOCUMENT NUMBER: 95:171347

TITLE: **Cellulose sulfoalkyl ethers**INVENTOR(S): Smirnova, G. N.; Katalevskaya, I. V.; Petrenko, V. A.;
 Prokof'eva, M. V.; Komyakov, Yu A.; Lipkes, M. I.;
 Anan'ev, A. N.

PATENT ASSIGNEE(S): USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy,
 Tovarnye Znaki 1981, (25), 271.

CODEN: URXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 677412	A1	19810707	SU 1973-1560137	19730201

AB Sulfoalkyl ethers of cellulose are produced by reaction of alkali metal cellulose or cellulose ether with a mixt. of isomeric 1,4- and 2,4-butane sultones in a ratio of 34.7-45.2:44.2-47.2, contg. 5-20% Bu chlorobutanesulfonate, as sulfoalkylating agent, and carrying out the process at a cellulose/sulfoalkylating agent ratio of 1:1-2.

IT 37325-17-0P

RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (prepn. of)

RN 37325-17-0 HCAPLUS

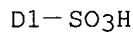
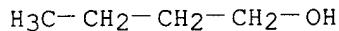
CN Cellulose, sulfobutyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-80-9

CMF C4 H10 O4 S

CCI IDS



CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 43 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1981:482674 HCPLUS
 DOCUMENT NUMBER: 95:82674
 TITLE: Hybrid cellulose derivatives
 PATENT ASSIGNEE(S): Fuji Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56041201	A2	19810417	JP 1979-117766	19790912
JP 58004042	B4	19830124		

AB The reaction of alkali cellulose (I) with alkylene oxide, glycidyltrialkylammonium chloride, and propane sultone (II) or butyrolactone gave the title product. Thus, a mixt. of I 440, ethylene oxide 66, glycidyltrimethylammonium chloride 250 g, and II in 300 mL Me₂CO and 400 mL MeOH was stirred for 3 h at 55.degree. to give 408 g product forming a transparent flexible film.

IT 78690-16-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manuf. of)

RN 78690-16-1 HCPLUS

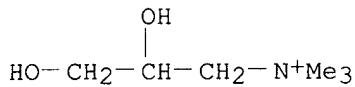
CN Cellulose, 2-hydroxyethyl 2-hydroxy-3-(trimethylammonio)propyl 3-sulfopropyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

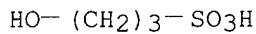
CRN 170553-73-8
 CMF C₆ H₁₆ N O₂ . x C₃ H₈ O₄ S . x C₂ H₆ O₂ . x Unspecified

CM 2

CRN 44814-66-6
 CMF C₆ H₁₆ N O₂



CM 3

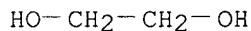
CRN 15909-83-8
CMF C3 H8 O4 S

CM 4

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 107-21-1
CMF C2 H6 O2

L63 ANSWER 44 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1980:606424 HCPLUS
 DOCUMENT NUMBER: 93:206424
 TITLE: Sulfoethyl cellulose
 INVENTOR(S): Plisko, E. A.; Nud'ga, L. A.; Petropavlovskii, G. A.
 PATENT ASSIGNEE(S): Institute of High-Molecular-Weight Compounds, Academy
 of Sciences, U.S.S.R., USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy,
 Tovarnye Znaki 1980, (31), 93-4.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 757540	T	19800823	SU 1976-2360258	19760317

AB In the prodn. of sulfoethyl cellulose [9032-46-6], treatment of alkali cellulose (I) [9004-34-6] with a 2.5-16% soln. of Na vinylsulfonate (II) in secondary or tertiary alcs. at I-II molar ratio 1:1-6 at 60-90.degree. simplified the procedure and reduced the consumption of II.

IT 9032-46-6P
 RL: PREP (Preparation)
 (manuf. of, in presence of secondary and tertiary alcs.)

RN 9032-46-6 HCAPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

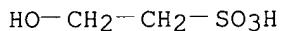
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S



L63 ANSWER 45 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1979:88971 HCAPLUS
 DOCUMENT NUMBER: 90:88971
 TITLE: Coagulation of cellulose ethers and esters in the presence of **nonaqueous** precipitants and electrolytes
 AUTHOR(S): Pletnev, M. Yu.; Trapeznikov, A. A.
 CORPORATE SOURCE: Inst. Fiz. Khim., Moscow, USSR
 SOURCE: Kolloidn. Zh. (1978), 40(2), 368-72
 CODEN: KOZHAG; ISSN: 0023-2912
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB The threshold concn. of iso-PrOH or acetone for coagulation of 0.6% solns. of CM-cellulose Na salt [9004-32-4] and 2-sulfoethyl cellulose Na salt [39277-57-1] decreased with increasing concn. of electrolyte. Among the electrolytes the effect decreased in the cation order Al > Ca > Zn > K > Na > NH₄ > Li and in the anion series I \cdot gtoreq. Br > Cl > CO₃²⁻ \cdot simeq. SO₄ > PO₄³⁻. The effect of anion is much weaker than that of cation. The coagulation thresholds were detd. by nephelometric titrn. at 540 \cdot +- 10 nm.
 IT 39277-57-1
 RL: USES (Uses)
 (coagulation of, by iso-Pr alc., electrolyte effect on)
 RN 39277-57-1 HCAPLUS
 CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO-CH₂-CH₂-SO₃H

L63 ANSWER 46 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1978:39177 HCPLUS
 DOCUMENT NUMBER: 88:39177
 TITLE: Sulfoethylcellulose soluble in water and water
 solutions of alkalies
 INVENTOR(S): Pastyr, Jan; Kuniak, Ludovit
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 2 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Czech
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 168967	B	19760629	CS 1973-2292	19730329

AB **Etherifying cellulose (I) [9004-34-6] with Na**
.beta.-chloroethylsulfonate (II) [15484-44-3] gave sulfoethyl cellulose
(III) [9032-46-6]. Thus, a mixt. of 1 kg powd. I in 0.87-1.1 L 50% NaOH
was stirred for 30 min to give Na cellulose which was treated with 12 L
iso-PrOH and 0.5-0.525 kg II, heated for 1-2 h at 65.degree., filtered,
washed with 90% EtOH, and dried in vacuo at 60.degree. to give III with
0.45-0.5 substitution degree.

IT **9032-46-6P**
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manuf. of)
 RN 9032-46-6 HCPLUS
 CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

HO-CH₂-CH₂-SO₃H

L63 ANSWER 47 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1977:6322 HCPLUS
 DOCUMENT NUMBER: 86:6322
 TITLE: Vinylsulfonation of precrosslinked cellulose
 AUTHOR(S): Simeonov, N.; Dimov, K.
 CORPORATE SOURCE: Vyssh. Khim.-Tekhnol. Inst., Sofia, Bulg.
 SOURCE: Cellul. Chem. Technol. (1976), 10(4), 419-21

CODEN: CECTAH

DOCUMENT TYPE: Journal
LANGUAGE: RussianAB Highly **etherified sulfoethylcellulose** [37325-18-1] was obtained by vinylsulfonation of cellulose (I) [9004-34-6] fibers preliminarily crosslinked with dimethylethyleneurea [80-73-9] or HCHO [50-00-0]. The degree of vinylsulfonation was increased on using mixts. of HCHO with of glucose, glycol, or glycerol as crosslinking agents. The degree of vinylsulfonation of HCHO-crosslinked I fibers was increased from 8.44 to 15.7% S by the presence of glucose. The obtained fibers were insol. and had good strength properties.

IT 37325-18-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by vinylsulfonation of crosslinked cellulose)

RN 37325-18-1 HCPLUS

CN Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 170971-81-0
CMF C3 H8 O4 S
CCI IDSH₃C—CH₂—CH₂—OHD1—SO₃H

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 48 OF 52 HCPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:91888 HCPLUS
DOCUMENT NUMBER: 84:91888
TITLE: **Hydroxypropylcellulose** and mixed ether derivatives
INVENTOR(S): Molnar, Henri
PATENT ASSIGNEE(S): Novacel S. A., Fr.
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2523272	A1	19751218	DE 1975-2523272	19750526
FR 2273012	A1	19751226	FR 1974-18726	19740530
FR 2306215	A2	19761029	FR 1975-10220	19750402
GB 1490160	A	19771026	GB 1975-22811	19750523

NL 7506309	A	19751202	NL 1975-6309	19750528
PRIORITY APPLN. INFO.:			FR 1974-18726	19740530
			FR 1975-10220	19750402

AB Treating powd. cellulose (I) with **aq.** NaOH soln. at room temp. and **etherifying** with propylene oxide (II), chloroacetic acid or propane sultone in C7H16 at 70-90.degree. gave I **ethers** for which pressing in the 1st stage of the process was not necessary. Thus, a mixt. of 1 part I and 0.07 part NaOH dissolved in 0.2 part H2O was stirred for 1 hr at room temp., treated with 2.65 parts II and 2.5 parts C7H16, and heated for 6 hr at 70.degree. to give cold H2O-sol. hydroxypropyl cellulose [9004-64-2] with .apprx.3 II residues per **anhydroglucose** unit.

IT 58450-11-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of)

RN 58450-11-6 HCPLUS

CN Cellulose, 2-hydroxypropyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 15909-83-8

CMF C3 H8 O4 S

HO—(CH₂)₃—SO₃H

CM 2

CRN 9004-34-6

CMF Unspecified

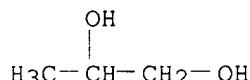
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 57-55-6

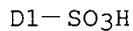
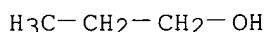
CMF C3 H8 O2



L63 ANSWER 49 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1975:100009 HCPLUS
 DOCUMENT NUMBER: 82:100009
 TITLE: Nonaqueous process for reacting sultones with
 cellululosic materials
 INVENTOR(S): Ward, Truman L.; Benerito, Ruth R.; Berni, Ralph J.
 PATENT ASSIGNEE(S): United States Dept. of Agriculture
 SOURCE: U.S., 4 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 3854868	A	19741217	US 1972-306770	19721115
AB	Na cellulose [9069-34-5], prep'd. from a cotton printcloth by treatment with Na alkoxide in DMF, was washed with tert-butanol [75-65-0] and treated with propane sultone [1120-71-4] in tert-butanol at 25-75.degree. to give sulfopropyl cellulose [37325-18-1] with S content 1.8-3.08%. Other nonaq. solvents may be used, but the S content is lowered. The propane sultone soln. may be reused.				
IT	37325-18-1P RL: PREP (Preparation) (manuf. of, in tert-butanol)				
RN	37325-18-1 HCAPLUS				
CN	Cellulose, sulfopropyl ether (9CI) (CA INDEX NAME)				
CM	1				
CRN	170971-81-0				
CMF	C3 H8 O4 S				
CCI	IDS				



CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 50 OF 52 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1973:420490 HCAPLUS
 DOCUMENT NUMBER: 79:20490
 TITLE: Production and characterization of **cellulose**
 2-sulfoethyl **ether** sodium salt. I
 Dimov, K.; Simeonov, N.; Dimitrov, D.
 AUTHOR(S):
 CORPORATE SOURCE: Chem.-Technol. Inst., Sofia, Bulg.
 SOURCE: Papier (Darmstadt) (1973), 27(4), 129-34
 CODEN: PAERAY
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB The S content in **cellulose** 2-sulfoethyl **ether** Na salt
 (I) [39277-57-1] was affected little by reaction time at const. reaction
 temp. and was affected considerably by Na vinylsulfonate concn. and the
 type and amt. of **catalyst**. The optimal conditions for the
 prodn. of water-sol. I and ir spectra of I were given.
 IT **39277-57-1P**
 RL: SPN (Synthetic preparation); **PREP (Preparation)**
 (prepn. of)
 RN 39277-57-1 HCAPLUS

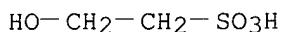
CN Cellulose, 2-sulfoethyl ether, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

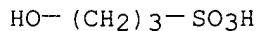
CM 2

CRN 107-36-8
CMF C2 H6 O4 S

L63 ANSWER 51 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1972:503561 HCPLUS
 DOCUMENT NUMBER: 77:103561
 TITLE: Amphoteric cellulose
 INVENTOR(S): Elizer, Lee H.
 PATENT ASSIGNEE(S): Hubinger Co.
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3676423	A	19720711	US 1969-862051	19690929
AB	Amphoteric cellulose derivs., (YOSO ₂ RO) _m X[ORN(R ₁) ₂] _n (R = C ₁₋₄ alkylene or hydroxyalkylene, R ₁ = C ₁₋₄ alkyl, Y = H, Na, K, Ca, NH ₄ , X = cellulose, m, n = 0.15-3, m + n = <8 per 100 anhydroglucose units), with isoelec. pH 6.0-7.5 were prep'd. by treating cellulose with a N-contg. etherifying agent and a reagent contg. a sulfonic radical. Thus, cellulose was treated sequentially with propane sultone in Me ₂ CO, aq. 2-chloroethylidethylamine hydrochloride, and aq. NaOH to give the amphoteric resin with isoelec. pH 6.0-6.5.			
IT	37228-13-0P RL: PREP (Preparation) (manuf. of, amphoteric)			
RN	37228-13-0 HCPLUS			
CN	Cellulose, 2-(diethylamino)ethyl 3-sulfopropyl ether (9CI) (CA INDEX NAME)			

CM 1

CRN 15909-83-8
CMF C3 H8 O4 S

CM 2

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 100-37-8
 CMF C6 H15 N O

Et₂N—CH₂—CH₂—OH

L63 ANSWER 52 OF 52 HCPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1972:450446 HCPLUS
 DOCUMENT NUMBER: 77:50446
 TITLE: Microcrystalline sulfoethylcellulose
 INVENTOR(S): Kuniak, Ludovit; Pasty, Jan
 SOURCE: Czech., 2 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Czech
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
CS 140983		19710415	CS 1969-622	19690131

AB Microcryst. crosslinked cellulose (1 kg) was treated in iso-PrOH with 1.1
 1. 40% NaOH, suspended 1 hr, mixed with 1 kg 2-chloroethanesulfonic acid
 [18024-00-5] at 15-20.deg., heated slowly to 65-80.deg. for 0.5-2 hr,
 washed until neutral and dried to give the title compd. with exchange
 capacity 1-2 mequiv./g and 5-7% S. The above ratio cellulose-NaOH-
 C1CH2CH2SO3H was improtant for prevention of side reactions.

IT 9032-46-6P

RL: PREP (Preparation)
 (manuf. of microcryst.)

RN 9032-46-6 HCPLUS

CN Cellulose, 2-sulfoethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-36-8
 CMF C2 H6 O4 S

WHITE 09/955, 864

HO—CH₂—CH₂—SO₃H